4-2016

Solving the puzzle of corporate governance of state-owned enterprises: The path of Temasek model in Singapore and lessons for China

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 Printed in U.S.A.
Northwestern Journal of International Law & Business Vol. 36, No. 2

Solving the Puzzle of Corporate Governance of State-Owned Enterprises: The Path of the Temasek Model in Singapore and Lessons for China

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Abstract: The purpose of this Article is to examine the corporate governance of state-owned enterprises (SOEs) in the Asian context by empirically surveying the influence of Temasek Holdings, Singapore's sovereign wealth fund, on its portfolio of government-linked companies in Singapore. Overall, the Temasek model seems to be a promising one. This Article shows that the top listed government-linked companies in which Temasek has a stake have greater board independence than the other top listed companies in Singapore. This illustrates that a high quality of corporate governance could be aligned with public interests associated with SOEs. While this research offers hope for SOE reformers in China, the Article also argues that the need for strong public governance, the role of foreign activities and market forces, and the importance of a government's desire to serve as a market leader are all underlying factors that make Temasek what it is today. Unfortunately, in the absence of those institutional factors, transplant of the Temasek model to other countries is unlikely to be entirely successful.

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* Assistant Professor of Law, Singapore Management University. The author thanks for the kind sponsorship of the Singapore Management University to fund this research (Research Grant No. 14-C234-SMU-006).

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I. INTRODUCTION

The corporate governance of state-owned enterprises[1] (SOEs) offers a puzzling irony. One might expect the state to lead by example since it imposes corporate governance rules on private enterprises whether by strict laws or voluntary codes.[2] However, SOEs are generally not known for good corporate governance. It has been noted that "[SOEs] in many developing countries have been shown to be inefficient and ineffective."[3] Can we solve the puzzle? This is an important issue poised to take on enormous significance, as the reform of China's gigantic SOEs—undermined by the "networked hierarchy"[4] model—appears imminent.[5]

In Asia, Singapore's model of governing Temasek Holdings Pte. Ltd. (Temasek)—a well-known sovereign wealth fund[6] that the Financial Times has described as "one of the world's most influential investors"[7]—has been praised as a model for reform in China.[8] Some academics have also called for the Temasekization (i.e., the management of a state-owned holding company modeled off of Temasek) of China's State-owned Assets

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1 There is no strict legal definition of a state-owned enterprise (SOE). The OECD loosely defines SOEs as "enterprises where the state has significant control, through full, majority, or significant minority ownership." OECD, CORPORATE GOVERNANCE OF STATE-OWNED ENTERPRISES: A SURVEY OF OECD COUNTRIES 183, http://www.oecd.org/daf/ca/corporategovernanceofstate-ownedenterprises/corporategovernanceofstate-ownedenterprisesasurveyofoecdcountries.htm. This Article adopts this definition.

2 *See generally* Cally Jordan, *Cadbury Twenty Years On*, 58 VILL. L. REV. 1 (2013) (for general discussion on the use of corporate governance codes since the Cadbury Report in 1992).

3 James S. Ang & David K. Ding, *Government Ownership and the Performance of Government-linked Companies: The Case of Singapore*, 16 J. MULTI. FIN. MANAG. 64, 72 (2006).

4 Li-Wen Lin & Curtis J. Milhaupt, *We are the (National) Champions: Understanding the Mechanisms of State Capitalism in China*, 65 STAN. L. REV. 697, 706–14 (2013).

5 In November 2013 during the Third Plenary Session of the 18th CPC Central Committee, the Chinese government announced its intention to reform the country's SOEs to create a stable economy. *See SOE Reform Essential to a Stable Economy*, CHINA DAILY (Nov. 9, 2013), http://www.chinadaily.com.cn/china/2013cpctps/2013-11/09/content_17093214.htm.

6 It has been noted that there is definitional uncertainty concerning different forms of state capital and sovereign wealth funds. George Gilligan & Megan Bowman, *State Capital: Global and Australian Perspectives*, 37 SEATTLE U. L. REV. 597, 606–607 (2014). This Article uses the term "sovereign wealth fund" broadly without specifically defining it.

7 Javier Bias & Jeremy Grant, *Temasek Widens its Africa Footprint*, FIN. TIMES (Apr. 15, 2014), http://www.ft.com/cms/s/0/376372ba-c3e9-11e3-b2c3-00144feabdc0.html?siteedition=uk#axzz38pWAD71K.

8 *From SOE to GLC*, THE ECONOMIST, Nov. 23, 2013, http://www.economist.com/news/finance-and-economics/21590562-chinas-rulers-look-singapore-tips-portfolio-management-soe-glc. *See also* Li Yang, *Singapore's Temasek to Be 'Model' for SOE Reform*, CHINA DAILY (Jan. 28, 2014), http://usa.chinadaily.com.cn/epaper/2014-01/28/content_17263195.htm. Singapore also seeks to export its management and governance experiences to other countries (such as teaching match or water treatment). Louise Lucas, *Singapore Seeks to Export own Model*, FIN. TIMES (July 29, 2015), http://www.ft.com/cms/s/0/2adc8d68-20a6-11e5-aa5a-398b2169cf79.html#axzz3hLMwP65q.

Supervision and Administration Commission (SASAC) as a "possible pathway of change [for China] [as] a reorientation of the party-state in its role as a controlling shareholder."[9] The authors further argue that a "reorientation of SASAC toward the Temasek model would require a relaxation of party involvement in key managerial appointments and further devolution of control over the national champions to outside investors and independent directors."[10] However, does Temasek really impose good corporate governance standards on its domestic portfolio? Or is Temasek's good image merely public relations puffery? In other words, can Chinese SOEs learn a lesson from Temasek? These questions remain unanswered in the current literature. This Article will attempt to address these questions while utilizing empirical data. This Article will also illuminate signs which demonstrate that large listed companies in which Temasek has stakes have higher corporate governance standards than other large listed companies in Singapore. While this may comfort critics of SOEs, this Article will show that the unique environment in Singapore makes Temasek a difficult model to duplicate.

There could be a few explanations why corporate governance of SOEs is often poor. This has led to some international attention from the OECD entering the 21st century.[11] First, the goal of state ownership may be in

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9 Lin & Milhaupt, *supra* note 4, at 754.

10 *Id.* at 755.

11 In 2005, the OECD published a report concerning the governance of state-owned enterprises. OECD, CORPORATE GOVERNANCE OF STATE-OWNED ENTERPRISES (2005), http://www.oecd.org/daf/ca/corporategovernanceofstate-ownedenterprises/corporategovernanceofstate-ownedenterprisesasurveyofoecdcountries.htm [hereinafter OECD 2005 REPORT]; OECD, GUIDELINES ON CORPORATE GOVERNANCE OF STATE-OWNED ENTERPRISES (2005), http://www.oecd.org/daf/ca/corporategovernanceofstate-ownedenterprises/corporategovernanceofstateownedenterprisesasurveyofoecdcountries.htm. The 2005 Report was followed by an additional report in 2011 discussing the changes and reforms since 2005. OECD, *CORPORATE GOVERNANCE OF STATE-OWNED ENTERPRISES: CHANGE AND REFORM IN OECD COUNTRIES* (2011), http://www.oecd-ilibrary.org/governance/corporate-governance-of-state-owned-enterprises_9789264119529-en [hereinafter OECD 2011 REPORT]. Some also approach from the angle of the governance of sovereign wealth funds, which could be deployed as a vehicle to control SOEs. *See* Larry Cata Backer, *Sovereign Investing in Times of Crisis: Global Regulation of Sovereign Wealth Funds, State-Owned Enterprises, and the Chinese Experience*, 19 TRANSNAT'L L. & CONTEMP. PROBS. 3 (2010); Richard A Epstein & Amanda M Rose, *The Regulation of Sovereign Wealth Funds: The Virtues of Going Slow*, 76 U. CHI. L. REV. 111 (2009); Oliver T. Gilbert, *Global Analytical Lessons for Evaluating a Myanmar Sovereign Wealth Fund*, 23 PAC. RIM L. & POL'Y J. 579 (2014); Amy Keller, *Sovereign Wealth Funds: Trustworthy Investors or Vehicles of Strategic Ambition? An Assessment of the Benefits, Risks and Possible Regulation of Sovereign Wealth Funds*, 7 GEO. J. L. & PUB. POL'Y 333 (2009); Yvonne C.L. Lee, *The Governance of Contemporary Sovereign Wealth Funds*, 6 HASTINGS BUS. L. J. 197 (2010); Joseph J. Norton, *Evolving Components of the New Bretton Woods II Post-Global Financial Crisis Architecture and Another Example of Ad Hoc Global Administrative Networking and Related "Soft" Rulemaking?*, 29 REV. BANKING & FIN. L. 465 (2010); Paul Rose, *Sovereigns as Shareholders*, 87 N.C. L. REV. 83 (2008); Anthony Wong, *Sovereign Wealth Funds and the Problem of Asymmetric Information: The Santiago Principles and International Regulations*, 34 BROOK J. INT'L L. 1081 (2009).

conflict with core corporate governance principles. As one scholar notes, "[t]he overarching question for the government owners of SOEs is why [they] have to be owned by the state."[12] The Organisation for Economic Cooperation and Development (OECD) identifies three main goals of the state ownership of enterprises:[13] to sustain or boost certain industries,[14] to boost the economy,[15] and to achieve fiscal or redistributive objectives.[16] Other rationales for state ownership include: maintaining natural monopolies or incumbent public service operators (e.g., the post office in many countries), or achieving industrial policies and development strategies.[17] National security may also be a concern (e.g., of a firm manufacturing fighter jets). Those public interests may divert a manager's goal from shareholder wealth maximization to the interests of certain groups (e.g., social minority or employees).[18] Therefore, agency costs may be higher for small shareholders. Finding a way to balance an SOE's public objectives with its commercial goals is thus an important but difficult issue.[19]

Second, the state often plays a conflicting role regarding SOEs as it acts both as a regulator and a shareholder.[20] As a regulator, the state should be accountable to its citizens and should serve the public interest with regard to rule-making and enforcement. As a shareholder, in contrast, the state should be interested in enhancing the value of its investment. The two roles could be in conflict. For example, in China, a state-owned bank has been asked to extend credit to several companies to rescue the economy.[21]

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[12] Hans Christiansen, *Balancing Commercial and Non-commercial Priorities of State-owned Enterprises* 6 (OECD Corp. Governance, Working Paper No. 6, 2013), http://www.oecd-ilibrary.org/governance/balancing-commercial-and-non-commercial-priorities-of-state-owned-enterprises_5k4dkhztkp9r-en.

[13] OECD 2005 REPORT*, supra* note 11, at 21.

[14] Through SOEs, the state can help to sustain or control the decline of industries crucial to the economy or support emerging industries, in contrast to the private sector, which is less equipped to cope with the high risk and huge costs involved. *Id.*

[15] In particular, the state could use SOEs to boost economy in less developed areas and pursue social goals (e.g., equality) through investments in infrastructure. *Id*.

[16] For example, the state may invest in certain sectors to impose monopoly prices and thereby contribute to fiscal income or, in contrast, to reduce prices as a form of subsidy. OECD 2005 REPORT, *supra* note 11, at 21.

[17] Christiansen, *supra* note 12, at 6–7.

[18] Mark J. Roe, *Political Preconditions to Separating Ownership from Corporate Control*, 53 STAN. L. REV. 539, 543, 550–53 (2000).

[19] For a general discussion of the balance between the commercial and non-commercial goals of SOEs in Hungary, Israel, the Netherlands, New Zealand, and Norway, see Christiansen, *supra* note 12.

[20] Chien-Chung Lin, *The Chinese Independent Director Mechanism under Changing Macro Political-economic Settings: A Review of its First Decade and Two Possible Models for the Future*, 1 AM. U. BUS. L. REV. 263, 309 (2012).

[21] *Giant reality-check*, THE ECONOMIST (Aug. 31, 2013), http://www.economist.com/news/finance-and-economics/21584331-four-worlds-biggest-lenders-must-face-some-nasty-truths-giant-reality-check.

A private bank could refuse to avoid endangering its capital base.[22] In another example, Taiwan's Ministry of Finance openly ousted Taishin (a privately-held financial group) from the management of Chang Hwa Bank (a bank partially owned by the state) in a proxy battle in 2014, some years after first allowing Taishin to hold significant stakes in Chang Hwa.[23] As a shareholder, the Ministry of Finance has the right to compete for management. However, this also raises concerns of the soundness and fairness of the financial market when one arm of the state forced Taishin to surrender control after turning Chang Hwa back to profits, an issue which the financial regulator (the other arm of the state) should address. The dual roles of the state may also affect the enforcement of corporate governance rules (e.g., removing a government official—acting in his capacity as a director—for breach of duties) as one arm of the state (as regulator) may be less likely to enforce rules against another arm for political or other reasons.

Moreover, there is also the possibility that the government will give SOEs preferential treatment, which may distort market competition and hinder market efficiency. For example, it has been commented that "Chinese SOEs have been instrumental in advancing the government's national goals . . . . However, SOEs have been far less prominent in keeping prices low and ensuring social equality."[24] The situation has led to some Chinese SOEs venturing into real estate simply to reap excessive profits, creating a real-estate bubble in the process.[25] It has been further argued that the desire to have national champions on the global stage—as well as entrenched relationships between the government, the Communist Party, and other interested parties—may prompt the Chinese government to devote more resources to SOEs, thereby leading to "Chinese corporate groupism."[26]

Third, unlike many private firms, an SOE may face less pressure from private investors or financiers.[27] The lack of external monitoring would provide less incentive for SOEs to improve its corporate governance in order to enhance its value and credibility.[28] It is also much less likely to have a proper market for corporate control if a target company is owned by

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[22] Assaf Hamdani & Ehud Kamar, *Hidden Government Influence over Privatized Banks*, 13 THEORETICAL INQ. L. 567, 590 (2012).

[23] *Editorial: Chang Hwa Win Highlights Problems*, TAIPEI TIMES (Dec. 15, 2015), http://www.taipeitimes.com/News/editorials/archives/2014/12/15/2003606755.

[24] Zhaofeng Wang, *Corporate Governance under State Control: The Chinese Experience*, 13 THEORETICAL INQ. L. 487, 499 (2012).

[25] *See id*.

[26] *See* Lin & Milhaupt, *supra* note 4, at 712.

[27] *See* Stavros Gadinis, *Can Company Disclosure Discipline State-Appointed Managers? Evidence from Greek Privatization,* 13 THEORETICAL INQ. L. 525, 527 (2012). Competition for finance may facilitate investors to control agency costs. JEAN TIROLE, THE THEORY OF CORPORATE FINANCE 283 (2006).

[28] *See* Gadinis, *supra* note 27, at 527.

the state, raising the possibility of higher agency costs.[29] Moreover, SOEs often enjoy a monopoly in the domestic market, which may contribute to higher agency costs and poorer corporate governance.[30] Thus, some argue that the complete privatization of SOEs would likely result in better performance.[31] In a way, "having other shareholders introduces market pressures and may become an important means of monitoring SOE management."[32] However, whether partial privatization would work well is still a contentious issue.[33] It is also hard to determine how private investors and the state will interact with each other in the long run. Even within the OECD, countries have different policies and practices.[34] For example, some countries (e.g., France and New Zealand) adopted a centralized model to arrange a unit within an existing ministry to be responsible for the overall management of privatization agenda, while others chose a decentralized model or had a sectorial ministry responsible for the process of privatization.[35] How far privatization can work should require further empirical survey in a given context.

Fourth, state dominance of an SOE may also render certain internal supervisory mechanisms ineffective. For example, there are suspicions that a board of supervisors prescribed by China's company law may not be effective in monitoring the performance of a board of directors, as the state (which is the controlling shareholder) may control both boards, thereby rendering the supervisory mechanism dysfunctional.[36]

Finally, the state as a dominant shareholder may also bully minority shareholder, raising concerns for shareholder protection. As the OECD observed, "[a]s a dominant shareholder, the state may be in a position to abuse minority shareholders as it is able to make decisions in [general meetings] without the approval of minority shareholders [and] [i]t is also usually in a position to control the board's composition."[37] Even if a SOE has been privatized, this is no guarantee that the state would relinquish control.[38] Due process issues may also surface. For example, a regulator

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[29] Roe, *supra* note 18, at 558; Gadinis, *supra* note 27, at 528, 535.

[30] *See* Mark J. Roe, *Rents and Their Corporate Consequences*, 53 STAN. L. REV. 1463, 1468, 1472–73 (2001).

[31] Gadinis, *supra* note 27, at 533.

[32] OECD 2005 REPORT, *supra* note 11, at 70.

[33] *See generally* Gadinis, *supra* note 27; Mariana Pargendler, *The Unintended Consequences of State Ownership: The Brazilian Experience*, 13 THEORETICAL INQ. L. 503 (2012).

[34] *See generally* OECD, PRIVATISING STATE-OWNED ENTERPRISES: AN OVERVIEW OF POLICIES AND PRACTICES IN OECD COUNTRIES (2003), http://www.oecd-ilibrary.org/governance/privatising-state-owned-enterprises_9789264104099-en (discussing the general privatization policies and practices in OECD countries).

[35] *Id*. at 53–58.

[36] *See* Lin, *supra* note 20, at 297.

[37] OECD 2005 REPORT, *supra* note 11, at 70.

[38] For example, research in Israel shows that the Israeli government sold the shares of state-owned

may use its power as a majority shareholder to force an inadequate director to step down without opening a formal inquiry or to keep an unfit director in office because of his relationship with the government. Although such actions may save regulatory costs and increase confidentiality,[39] these actions should arguably be more transparent for the sake of the public interest. Finding a way to ensure the proper management of an SOE to benefit the long-term interests of its shareholders (including the state) rather than allowing it to become trapped in the short-termism of corporate profit-making[40] is an issue worthy of discussion.

Then, would there be any hope to improve corporate governance of SOEs? Academics have long debated on the cause of concentrated ownership and its impact on corporate governance, firm value, or other issues.[41] The "law and finance" literature has suggested that the legal origin (i.e., whether a country belongs to common law, civil law or other legal systems) might explain ownership structure and corporate governance,[42] though it has been criticized that legal origin is not the foundation of better shareholder protection and supporting institutions.[43] In addition, the path dependence theory suggests that "a country's pattern of ownership structures at any point in time depends partly on the patterns it had earlier."[44] From this view, the corporate governance of companies in a country, including SOEs, would be shaped by the social, political and economic background of the country.[45] Thus, the path for corporate governance of SOEs may differ if underlying conditions are different.

On this basis, Singapore offers an interesting case study. On the one hand, Singapore inherits English common law tradition so that the legal

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banks in a block to just a few investors to preserve its influence over the newly privatized bank. Hamdani & Kamar, *supra* note 22, at 579. Research on the privatization of SOEs in Brazil also suggests that the Brazilian government prefers whole ownership to partial ownership, and therefore that the state lacks interest in dealing with the various governing rules in corporate and securities law. Pargendler, *supra* note 33, at 521–22.

39 *See* Hamdani & Kamar, *supra* note 22, at 580–81.

40 *See generally* Lynne L Dallas, *Short-Termism, the Financial Crisis, and Corporate Governance*, 37 J. CORP. L. 265 (2012) (for a general discussion of the financial crisis and why financial and non-financial firms engage in short-termism).

41 *See, e.g.*, Joseph P.H. Fan & T.J. Wong, *Corporate Ownership Structure and the Informativeness of Accounting Earnings in East Asia*, 33 J. ACCT. & ECON. 401 (2002); Michael L. Lemmon & Karl V. Lins, *Ownership Structure, Corporate Governance, and Firm Value: Evidence from the East Asian Financial Crisis*, 58 J. FIN. 1445 (2003).

42 *See e.g.*, Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113, 1115–16 (1998); Rafael La Porta et al., *Corporate Ownership Around the World*, 54 J. FIN. 471, 505 (1999).

43 *See* Mark J. Roe, *Legal Origins, Politics, and Modern Stock Market*, 120 HARV. L. REV. 460, 462–66 (2006).

44 Lucian Ayre Bebchuk & Mark J. Roe, *A Theory of Path Dependence in Corporate Ownership and Governance*, 52 STAN. L. REV. 127, 129 (1999).

45 *See generally* Roe, *supra* note 18 (discussing political preconditions to diffuse ownership in the US and concentrated ownership in some European countries).

system should provide some institutional support for good corporate governance if we follow the law and finance literature. On the other hand, although Singapore's economy is still dominated by the state via Temasek and its portfolio of government-linked companies (GLCs), many of those GLCs have global operations (rather than just enjoying domestic dominance like many SOEs in the world) so that at least some of those firms do face pressure from domestic or overseas markets that may force them to raise their standards rather than hiding behind a veil of public-ness.[46] In addition, Singapore has a known *kiasu* (i.e., fear to lose out) culture[47] that drives not only students and teachers to compete to have higher grades[48] but also the government to stay as competitive as possible, resulting in Singapore being ranked high on many global rankings.[49] Those factors may lead up to a path that SOEs in Singapore under the Temasek model have to maintain good corporate governance practice to maintain competitiveness. If this is the case, the praise for the Temasek model may be justified. However, the subsequent question would be whether the path in Singapore offers any useful lessons for other countries, notably China.

In this Article, we will conduct an empirical survey of the corporate governance of top listed SOEs in the Singapore Exchange (SGX) that are linked to Temasek, drawing on information disclosed in the 2013 annual reports of the companies concerned[50] and on Temasek's own annual reports for 2013 and 2014.[51] Though our sample is limited to big listed companies and thus there should be some bias, our data will show that companies controlled by Temasek do seem to have higher corporate governance standards (e.g., having a higher proportion of independent directors or separation of roles between the chairman and chief executive officer) than other top listed firms on SGX in terms of board composition over which

[46] Competition in product market may provide some restraints on managerial behavior. JEAN TIROLE, THE THEORY OF CORPORATE FINANCE 28–29 (2006). However, it has also been argued that product market does not perfectly control agency costs. Roe, *supra* note 30, at 1473.

[47] "*Kiasu*" has been identified as the top value perceived by Singapore residents. Robin Chan, *S'pore is Kiasu and Elitist, Survey Finds; Respondents Want a Society that Has Affordable Housing and Cares for Ederly,* THE STRAITS TIMES, Aug. 24, 2012.

[48] *See, e.g.*, Neville John Ellis, *Afraid to Lose Out: The Impact of Kiasuism on Practitioner Research in Singapore Schools*, 22 EDUC. ACTION RES. 235 (2014) (discussing generally the impact of *kiasuism* on schoolteachers' work as researchers).

[49] *See infra* Part IV.A.

[50] *See SGX Annual Reports*, SINGAPORE EXCHANGE, http://www.sgx.com/wps/portal/sgxweb/home/company_disclosure/annual_financial (last visited Nov. 6, 2015). The annual reports of companies listed on the Singapore Exchange can be downloaded from the SGX website.

[51] *See* TEMASEK, TEMASEK REVIEW 2013 (2013), http://www.temasek.com.sg/documents/download/downloads/20130704205649/TR2013_Eng.pdf. (last visited Nov. 6, 2015); TEMASEK, TEMASEK REVIEW 2014 (2014), http://www.temasek.com.sg/documents/download/downloads/20140707170404/Temasek-Review-2014-En.pdf (last visited Nov. 6, 2015). Temasek Reviews can be accessed from the Temasek Holdings website.

Temasek does not exert control. However, we will also show that there are some institutional factors that make Temasek what it is today. Unfortunately, those factors are difficult to replicate in other countries without significant structural changes.

In the following parts, we first introduce the path and governance structure of Temasek, its domestic portfolio, and Singapore's concept of government-linked companies. In Part III, we present data on the corporate governance of the domestic companies linked to Temasek and that of other top listed firms. Based on the discussion in Parts II and III, we then consider the lessons that can be learned from Singapore's Temasek model and some of its underlying institutional factors and whether it is feasible to transplant that model to other Asian economies. Part V concludes the Article.

II. THE PATH OF SINGAPORE'S TEMASEK HOLDINGS

A. Creation of Temasek

Incorporated in 1974, Temasek is one of two sovereign wealth funds (SWFs) in Singapore, the other being GIC Private Limited (GIC).[52] Both are designated "government companies" in Singapore's Constitution.[53] The main difference between the two SWFs is that GIC "does not own assets and only manages assets and foreign reserves on behalf of the Singapore Government,"[54] whereas Temasek has owned and managed its own investments and assets since receiving initial seeding (valued at about SGD 354 million at the time) at inception and certain assets from the government in the 1990s.[55] Temasek's initial portfolio comprised thirty-five companies, but only twelve currently remain under its control.[56]

In theory, there are two broad SWF models: the manager model, where the legal owner of the pool of funds gives a mandate to an asset manager, and the investment company model, where the government as owner sets up an investment company that in turn owns the assets of the fund.[57] The International Monetary Fund notes that the investment company model is

52 *See generally* Press Release, GIC Private Ltd., Government of Singapore Investment Corporation Private Limited Is now GIC Private Limited (July 23, 2013), http://www.gic.com.sg/index.php/newsroom?id=127&Itemid=159). The company was known as Government of Singapore Investment Corporation Pte. Ltd. before changing its name to GIC Pte Ltd. in July 2013.

53 Constitution of the Republic of Singapore (Aug. 9, 1965) s 1/63, Fifth Schedule, Part II.

54 Lee, *supra* note 11, at 229.

55 TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 18.

56 *Id*.

57 Abdullah Al-Hassan, Michael Papaioannou, Martin Skancke, & Cheng Chih Sung, *Sovereign Wealth Funds: Aspects of Governance Structures and Investment Management* 10 (Int'l Monetary Fund, Working Paper No. 13/231, 2013), http://www.imf.org/external/pubs/ft/wp/2013/wp13231.pdf.

"typically employed when the investment strategy implies more concentrated investments and active ownership in individual companies."[58]

In Singapore's case, GIC is an example of the manager model,[59] whereas Temasek, which serves as the investment arm of the Singaporean government, is an example of the investment company model.[60] Unlike Temasek, GIC is presided over by the Prime Minister with a number of government ministers on its board.[61] In contrast, Temasek experiences much less state control in terms of board composition.[62] The differences might be partly explained by the fact that GIC manages the city-state's vast foreign reserves, whereas Temasek is more like a commercial arm of the state. While all SOEs and SWFs should serve some public missions, GIC's goal apparently has a much stronger political implication than Temasek's.

The underlying rationale for Temasek's creation in 1974 comprised "the idea that the Government should not be involved in [the] management of businesses" and the belief that "the Government and civil servants should focus on policy."[63] Therefore, the Singaporean government has separated the roles of the regulator and the investor from the very beginning, which may help to alleviate concerns over the conflicting roles played by the government in terms of the SOEs. The Temasek Charter also positions the company as an active investor and shareholder, forward-looking institution, and trusted steward.[64]

According to its 2014 annual review report, Temasek controls more than SGD 223 billion (about USD 180 billion) in its investment portfolio, and has enjoyed a 9% compound annual return over the past decade and a 16% growth rate since its inception in 1974.[65] The report also informs us that Temasek made investments worth SGD 24 billion (about USD 19 billion) in 2014 alone and investments worth SGD180 billion over the past decade.[66] The company invests not only in Singapore (which accounts for 31% of its portfolio) but also in many other parts of the world, including Asia ex-Singapore (41% of its portfolio), Europe, North America, Australia, and New Zealand (24% of its portfolio combined).[67] Temasek focuses on

58 *Id.*

59 *Id.*

60 *See supra* note 54.

61 *See About GIC*, GIC PRIVATE LTD., http://www.gic.com.sg/index.php/about-gic/corporate-goverance (last visited Nov. 5, 2015).

62 *See infra* Part II.C for the composition of the Temasek board.

63 *Growing Temasek into A Distinct and Unique Enterprises*, STRAITS TIMES, July 24, 2013, at A29; *see also* Press Release, Temasek, Transcript: Remarks by Chairman of Temasek, Mr. S. Dhanabalan, to Singapore Media (July 23, 2013), http://www.temasek.com.sg/mediacentre/newsreleases?detailid=19992 [hereinafter Temasek Press Release].

64 TEMASEK, TEMASEK REVIEW 2013, *supra* note 51, at 5.

65 TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 6–7.

66 *Id.* at 6.

67 *Id.* at 8.

three main industry sectors: financial services (about 30%); telecommunications, media, and technology (23%); and transport (20%).[68] Starting with its 2013 annual report, Temasek took the rare move of disclosing the biggest names in its portfolio, more than one-quarter of which is concentrated on three companies: Singapore Telecommunications (about 14% of the portfolio), China Construction Bank (about 8%), and Standard Chartered (about 7%).[69] The latter was replaced by the DBS Group (about 5%) in 2014.[70]

B. From SOEs to GLCs: Temasek's Domestic Portfolio

It is interesting to note how Temasek controls domestic industries in order to understand more of Temasek's role in Singapore's economy. In general, the 2005 OECD Report identifies three models of state ownership[71]: the decentralized or sector model, the dual model, and the centralized model.[72] The decentralized model, in which the responsibility for controlling the SOEs lies with the relevant sector ministries, is the most conventional.[73] However, the OECD notes that the most prevalent is the dual model, under which responsibility for controlling the SOEs is shared by a sector ministry and a central entity (e.g., the finance ministry).[74] Under the centralized model, "ownership responsibility is centralized under one main ministry."[75]

Temasek follows the centralized model. On the one hand, Temasek is fully owned by the Ministry of Finance,[76] and no other government ministry or agency owned shares in companies invested by Temasek.[77] On the other hand, it is not new that a government would establish one or more holding companies to manage SOEs. The OECD notes that "[t]his holding

[68] *Id.* at 9.

[69] TEMASEK, TEMASEK REVIEW 2013, *supra* note 51, at 42.

[70] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 30.

[71] Conceptually, the models for state ownership are different from those for sovereign wealth funds (SWF). The former considers how a state controls SOEs, while the latter deals with how a state sets up a SWF, which may or may not control domestic SOEs. In Singapore's case, government-linked companies are held solely through Temasek. Thus, there is an overlap between the two sets of classification.

[72] OECD 2005 REPORT, *supra* note 11, at 42.

[73] *Id.*

[74] *Id.*

[75] *Id.*

[76] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 64.

[77] *See generally* SINGAPORE AIRLINES, ANNUAL REPORT FY 2013/14 152 (2014), http://www.singaporeair.com/jsp/cms/en_UK/global_header/annualreport.jsp. In order to comply with the Air Service Agreements between Singapore and other countries, Singapore Airlines (as the national flag carrier) should at all times be effectively controlled and substantially owned by Singapore nationals. For this purpose, the Ministry of Finance of the Republic of Singapore holds one non-tradable special share, which gives the Ministry a right to veto certain matters.

organisation has often resulted from reforms undertaken mainly in the 1970's, aimed at decreasing political interference in the management of SOEs, giving more flexibility to their management *vis-à-vis* usual public management rules, and finally tougher budget constraints."[78] In a way, we may view Temasek (also created in the 1970s) as a result of such policy thinking.

There is no doubt that Singapore maintained significant control over the city-state's key industries via Temasek, as Table 1 shows.

[78] OECD 2005 REPORT, *supra* note 11, at 59–60.

TABLE 1: TEMASEK HOLDINGS AND MAJOR INDUSTRIES IN SINGAPORE[79]

Industry and Companies	Temasek's Direct Ownership Interest	Note
Utilities		
CitySpring Infrastructure Trust (gas)	37.41%[a]	Listed on SGX
Singapore Power	100%	Unlisted
Transport		
Singapore Airlines	55.95%	Listed on SGX
SIA Engineering	78.05%[a]	Listed on SGX
SMRT (public transport)	54.2%	Listed on SGX
PSA Int'l Pte. Ltd. (port)	100%	Unlisted
Neptune Orient Lines (shipping)	25.91%	Listed on SGX
SATS (airport services)	42.98%[a]	Listed on SGX
Media		
MediaCorp Pte. Ltd.	100%	Unlisted
Financial and Commodity Trading		
DBS Group Holdings	11.6%	Listed on SGX
Olam International	24.07%	Listed on SGX
Telecommunications		
Singapore Telecommunications	51.88%	Listed on SGX
Starhub	56.5%[a]	Listed on SGX
M1	19.39%[a]	Listed on SGX
Manufacturing and Heavy Industries		
Keppel Corp.	20.47%	Listed on SGX
Sembcorp Industries	48.85%	Listed on SGX
Sembcorp Marine	60.82%[a]	Listed on SGX
Real Estate and Other		
Wildlife Reserves Singapore Pte. Ltd.	88%	Unlisted
CapitaLand Ltd.	39.53%	Listed on SGX
Mapletree Investments Pte. Ltd.	100%	Unlisted[80]
Ascott Residential Trust	46.92%[a]	Listed on SGX
Keppel Land	54.65%	Listed on SGX
a. Deemed interests.[81]		

[79] The data are based on each company's annual report for 2013.

[80] Although Mapletree Investments Pte Ltd. is not a listed company, it controls several real estate investment trusts that are listed on the SGX, including Mapletree Commercial Trust, Mapletree Industrial Trust, Mapletree Logistics Trust, and Mapletree Greater China Trust.

[81] A "deemed interest" represents indirect ownership interests in a company's shares. Under

For clarity, throughout the Article we use "stake" to refer to Temasek's total interests (including both its direct ownership and indirect deemed interests) and "direct interests" or "owning shares" when Temasek is a shareholder of a firm. For convenience, we use the terms "companies" and "firms" interchangeably. However, we should note that some firms listed on the SGX or invested in by Temasek take the form of business trusts (notably real estate investment trusts), which are not themselves structured as companies but normally are managed by a management company.

For the most part, domestic firms in which Temasek holds a stake are no different from the usual SOE suspects seen in other countries. In effect, the Singapore government controls key industries or utilities solely through the state-owned holding company. Singapore's sole power company, Singapore Power, remains under the absolute control of Temasek. In the media realm, Temasek enjoys absolute control over the sole producer of terrestrial television programs. Temasek also exercises significant control over public transport and shipping. It has majority control over Singapore Airlines, the flag carrier, and SMRT, Singapore's largest public transport operator. It also holds a stake in a shipping company and enjoys absolute control over the operator of the Port of Singapore. In fact, the company also holds a stake in Hutchison Port Holdings Trust, one of the operators of the Port of Hong Kong.[82]

In the financial sector, Temasek has a substantial stake in the DBS Group, although it does not appear to have stakes in the other two local banking groups.[83] However, this does not mean that Temasek is not interested in the financial sector. It holds substantial stakes in Standard Chartered, a British bank with significant business interests in Asia, and

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Singapore law, a person is deemed to be interested in the shares of a company if he or she has certain connections to those shares. For example, a person (A) may be deemed to be interested in the shares of a company (Co. B) in the following situations: (1) A has the authority to dispose of the shares of Co. B; (2) A holds beneficial interests in the shares of Co. B (e.g., A is the beneficiary of a trust that holds the shares as trust assets); (3) A controls a third party (C) that has control over Co. B; (4) A controls more than 20% of C, which holds some shares in Co. B; and (5) A has a contract (including an option) or holds a right to purchase the shares of Co. B. *See* Companies Act (Cap 50, 2002 Rev Ed) s 7. In other words, the concept of "deemed interest" represents a person's indirect shareholding in the company. A person must disclose to a company whether his or her direct or indirect interests together amount to more than 5% of the company's outstanding shares. *See* Companies Act (Cap 50, 2002 Rev Ed) ss 81, 82.

[82] Although it is listed in Singapore, the HPH Trust is effectively controlled by Li Ka Shing—a Hong Kong tycoon.

[83] Pursuant to the Monetary Authority of Singapore, there are currently five local banks including DBS, Oversea-Chinese Banking Corporation (OCBC), Bank of Singapore (which is part of the OCBC group), United Overseas Bank (UOB), and Far Eastern Bank (which is part of the UOB group). *Financial Directory*, MONETARY AUTH. OF SINGAPORE, https://masnetsvc.mas.gov.sg/FID.html. Thus, there are three local banking groups in Singapore.

China Construction Bank, one of the four largest state-owned banks in China.[84] Although Temasek does not seem to hold a stake in any of the major domestic insurers, it does have a stake in several foreign insurance companies, including AIA (listed in Hong Kong) and Ping An.[85] The latter is considered to be one of the nine most important insurance companies in the world.[86]

The telecommunications sector presents a curious case. Temasek holds the majority of shares in Singapore Telecommunications (SingTel), and it also has deemed interests in the shares of the other two telecoms firms in Singapore—Starhub and M1—via its direct shareholding in other companies.[87] Thus, Temasek has significant direct or indirect stakes in all three telecoms in Singapore, leaving the local market without a true private player. It is also interesting to note that Temasek does not attempt to let SingTel monopolize the market, allowing Starhub (of which Temasek owns over 50% indirect shareholding interests) to be in fierce competition with SingTel over the provision of mobile and cable TV services in Singapore.

Several of the companies in which Temasek has a stake are regional or even global leaders in their fields. For example, DBS is the largest bank in Southeast Asia by assets,[88] and SingTel is the region's largest telecoms operator by revenue.[89] With Sembcorp Marine and Keppel Corp., Temasek controls two of the world's largest builders of jack-up rigs.[90] In addition, Singapore Airlines is often ranked among the best airlines in the world.[91]

There are a few other points to note about the companies associated with Temasek. First, most of them are listed firms, and are thus exposed to capital market regulations and to market pressure from institutional and/or individual shareholders. The companies in which Temasek has a stake function just like private enterprises, except that they are partly owned by

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[84] As of 2014, Temasek held 18% of the outstanding shares of Standard Chartered PLC and 6% of China Construction Bank. *See* TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 90.

[85] According to its 2014 report, Temasek owns about a 4% stake in AIA (a large Hong Kong-listed insurer) and has raised its stakes in Ping An to 3%. *See id*. at 90.

[86] *Global Systemically Important Insurers (G-SIIs) and the Policy Measures That Will Apply to Them*, FIN. STABILITY BD. (July 18, 2013), http://www.financialstabilityboard.org/publications/r_130718.pdf.

[87] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 93; STARHUB LTD., ANNUAL REPORT 2013 170 (2013), http://ir.starhub.com/FormBuilder/_Resource/_module/gZSLLgdlcU638zpQWaYGmQ/file/SHL_AR2013_Full_Report.pdf; M1 LTD., ANNUAL REPORT 2013 135 (2013), https://www.m1.com.sg/sites/AnnualReports/2013/assets/pdf/M1-Annual-Report-2013.pdf.

[88] Jeremy Grant, *Analysts Query Logic of Malaysia Three-Way Bank Merger*, FIN. TIMES (July 13, 2014), http://www.ft.com/cms/s/0/9331446e-0a3e-11e4-a55e-00144feabdc0.html#axzz39mVHiSGd.

[89] Jeremy Grant, *SingTel Bulks Up in Digital Marketing*, FIN. TIMES (June 11, 2014), http://www.ft.com/cms/s/0/b843f43c-f106-11e3-9e26-00144feabdc0.html#axzz39mVHiSGd.

[90] Jeremy Grant, *Boon for Singapore's Jack-Up Rig Builders,* FIN. TIMES (Mar. 31, 2013), http://www.ft.com/cms/s/0/2556e750-9910-11e2-bbd4-00144feabdc0.html#axzz39mVHiSGd.

[91] *See, e.g.*, *The World's 5-Star Airlines*, SKYTRAX, http://www.airlinequality.com (last visited Oct. 28, 2015).

the state via Temasek, which brings us to the concept of "government-linked companies" (GLCs) in Singapore. Although changing the terminology does not alter the fact that the shares of GLCs are ultimately SOEs, it does downplay the state ownership element. The GLC concept underscores Singapore's desire to control key domestic industries via Temasek without any overt intervention.

Second, Temasek still maintains absolute control over some unlisted entities and the sole terrestrial media firm (which are often structured as private companies[92]). For example, it enjoys complete ownership of Singapore's sole power company and of Wildlife Reserves Singapore Pte. Ltd., the operator of such local attractions as the zoo and the bird park. The reasons why those firms remain under Temasek's absolute control may be due to political or policy reasons, though there is no public explanation why they have not been privatized. To a certain extent, Temasek can also be said to serve charitable objectives by contributing to the local community.[93]

Third, several domestic companies owned by Temasek are also multinational enterprises. For example, SingTel has mobile customers not only in Singapore but also in Australia, India, and a few other countries in Southeast Asia and the Indian subcontinent. Therefore, Temasek's strategic position extends beyond Singapore's national borders.

Fourth, the company also holds stakes in foreign companies.[94] In 2013, Temasek made headlines by announcing an investment in Alibaba (a Chinese e-commerce giant) and its acquisition of a stake in the A.S. Watson Group (a retail chain selling pharmaceutical and cosmetic products) from Li Ka Shing, the richest man in Hong Kong.[95] Interestingly, Temasek also holds a stake in several energy firms in North America.[96] As Singapore produces no oil or natural gas, Temasek's investment in foreign energy firms may have a strategic purpose beyond purely financial considerations. Such foreign investments mean that Temasek often has to comply with foreign laws in order to trade or maintain its investments.

Fifth, Temasek often makes investments through a subsidiary. For example, Temasek's stake in InTouch Holdings (a Thai telecom) is held

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[92] Under Singapore law, a company may be registered as a private company if its constitution restricts the right to transfer its shares and the company has no more than fifty shareholders. Companies Act (Cap 50, 2002 Rev Ed) s 18(1).

[93] Temasek contributes to a number of philanthropic organizations. *See* TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 69–71.

[94] *See, e.g.*, TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 90–97.

[95] *Watsons: Elementary, My Dear*, FIN. TIMES (Mar. 21, 2014), http://www.ft.com/cms/s/3/07ea0e32-b0e2-11e3-bbd4-00144feab7de.html#axzz39mVHiSGd; Jeremy Grant, *Temasek Dented by China Shadow Banking Woes*, FIN. TIMES (July 8, 2014), http://www.ft.com/cms/s/0/9decc23a-066e-11e4-8c0e-00144feab7de.html#axzz39mVHiSGd.

[96] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 96.

through a subsidiary holding company called Aspen Holdings Ltd.[97] Temasek thus functions quite like a private enterprise with regard to organizing its shareholdings and control structure.

Finally, it is worth noting that Temasek does not invest only in the world's blue chip companies but also provides venture capital funding to young start-ups not only in Singapore, but also in other countries. One report suggests that Temasek is behind a start-up firm designing a mobile app that helps users in Southeast Asia call a taxi via a venture capital arum called Vertex Ventures Holdings Ltd.[98] Such reports certainly make Temasek's role in its investment portfolio and exposure more interesting.

C. Organizational Structure and Regulation of Temasek

According to the OECD 2005 Report, SOEs can take various legal forms, the most common of which within the OECD is the limited liability company. In some countries, however, an SOE can take the form of a public law institution.[99] In addition, SOEs may be subject to special laws in some countries.[100] The OECD notes that "SOEs with a specific legal status have often been distinguished by different provisions with respect to boards and the required level of disclosure" and are not subject to bankruptcy laws.[101] Singapore' GLCs all take the form of a limited liability company.

One point worth noting is that Temasek's management and operations are not built upon stringent rules. In fact, few Singapore laws regulate Temasek's operations. This legal backdrop can be further analyzed from the angles of corporate and public law. At the corporate law level, Temasek is incorporated as a private company pursuant to Singapore's Companies Act. Thus, it is not a creation of special laws, but rather a product of policy. Under the Companies Act, a company is eligible to register as a private company if its memorandum or articles of association restrict the rights of shareholders to transfer shares and its members number no more than fifty.[102] This rule ensures that a private company is rather closed in nature.

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97 As InTouch is listed in Thailand, it does not report "deemed interests" like in Singapore. However, in *Temasek Review 2014*, it does mention its investment in InTouch. *See Shareholder Structure*, INTOUCH CO., http://www.intouchcompany.com/Major%20Shareholdersen.pdf (last visited Oct. 28, 2015); TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 92. From a newspaper report, it has been reported that Aspen Holdings is fully owned by Temasek. Saeed Azhar & Denny Thomas, *Update 1 – Temasek Seeks to Sell $3.1 Bln Stake in Thailand's Shin Corp to SingTel – Sources*, REUTERS (Feb. 17, 2014), http://www.reuters.com/article/temasek-shincorp-singtel-idUSL3N0LM3YY20140218#lyfKumPCbwiJho28.97.

98 Ben Bland, *Southeast Asia's Answer to Uber*, FIN. TIMES (June 24, 2014), http://www.ft.com/cms/s/0/dbe630f2-f61b-11e3-a038-00144feabdc0.html#axzz38RZ8jYcy.

99 OECD 2005 REPORT, *supra* note 11, at 36.

100 *Id*.

101 *Id.* at 37.

102 Companies Act (Cap. 50, 2002 Rev Ed) s 18(1) (Sing.).

In addition, the government designates Temasek as an exempt private company,[103] which means that it enjoys a variety of exemptions provided by Singapore company law, including greater flexibility in designing its voting structure,[104] relief from the requirement to hold an annual general meeting,[105] and the ability to pass a resolution by written means under certain conditions.[106] As an exempt private company, Temasek may enjoy more freedom in lending money to its own directors or those of related companies.[107] However, the biggest advantage Temasek enjoys as an exempt private company is that it need not file audited financial information to Singapore's company registry.[108] The result is that no one outside the company can access company financial statements other than those disclosed in the annual Temasek Review.

At the public law level, the Constitution of the Republic of Singapore ensures that "the appointment or removal of any person as a director or chief executive officer of any Government company . . . shall not be made unless the President, acting in his discretion, concurs with such appointment or removal."[109] Otherwise, an appointment is considered void.[110] According to the Constitution, the President should consider the recommendations of the Council of Presidential Advisers. If he decides against the council's advice to refuse to concur with an appointment, Parliament may overrule his decision with a resolution supported by no less than two-thirds of its elected members.[111] The purpose of this provision is to ensure that the management of government companies such as Temasek and GIC pursue the public interest. It is also worth noting that the President must affirm the appointment of a director or CEO. Accordingly, the prime minister and other ministers have no constitutional power to intervene in the management of Temasek. To avoid exerting too great a political influence over that company's operations and management, the government does not interfere with Temasek or any other company's investment decisions. Although the President is constitutionally entitled to information related to Temasek in certain key areas, his power is reactionary and may be exercised "only when the government needs his concurrence to proceed."[112]

According to its *2014 Review Report*, Temasek had ten directors on its board on March 31, 2014, with three new members to be added after March

[103] *See id*. s 4 (defining "exempt private company")
[104] *See id.* s 64.
[105] *Id.* s 175A.
[106] *Id.* s 184A(1)–(2).
[107] *See id.* ss 162, 163.
[108] *See id.* s 197; Companies (Filing of Documents) Regulations (GN No S 17/2003) reg 38 (Sing.).
[109] Constitution of the Republic of Singapore (1999 Reprint) s 22(C)(1) (Sing.)
[110] *Id*. s 22C(2)(b).
[111] *See id.* s 22C(1A).
[112] Lee, *supra* note 11, at 232–33.

31st.[113] All of the directors had considerable business experience in Singapore, and three held ministerial or other government positions before joining Temasek.[114] Apart from the chairman, Mr. Lim Boon Heng, who has served in the cabinet for eighteen years and thus has strong government connections, only one director served in the government immediately before joining Temasek.[115] Most of the directors have been chairmen or executives of other large companies,[116] and one of the three non-Singaporeans on the board is the former Deputy Secretary of the U.S. State Department and a former U.S. trade representative.[117] Although the majority of the board members are Singaporeans, the presence of a few non-Singaporeans demonstrates the globalization of Temasek and its business focus.

Temasek claims that the majority of the board are "non-executive independent private sector business leaders."[118] Although it is unclear how many are actually independent directors, it appears that the CEO is the sole executive director.[119] The company boasts that neither the President nor government of Singapore is involved in its "investment, divestment, or other business decisions except in relation to protection of Temasek's own past reserves."[120] This claim strengthens Temasek's status as an active and professional investor, as does its promise that its management adheres to a company Code of Conduct and Ethics—any violation of which is examined by the Audit Committee.[121]

However, there are competing claims that Temasek's decisions, including those concerning appointments to major positions in its first fifteen years of operation, have sometimes been made in close consultation with the government.[122] If so, the early years of Temasek might have a stronger political interference. It has been suggested, though, that Temasek has become increasingly commercially-oriented since the appointment of Madam Ho Ching as CEO in January 2004, with key decisions now made primarily at the board level.[123] Madam Ching is the wife of Singapore's Prime Minister, suggesting that political influence may still exist even if it

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[113] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 53 (showing two of the new members were to be added June 10, 2014 and the third new member would join January 1, 2015).

[114] *See Board of Directors,* TEMASEK, http://www.temasek.com.sg/abouttemasek/boardofdirectors (last visited Nov. 5, 2015).

[115] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 54–56.

[116] *Id.*

[117] *Id.* at 55 ("Robert B. Zoellick").

[118] *Id.* at 50.

[119] *Id.* at 53. What we can ascertain is that the four directors on the Audit Committee should be independent directors. *Id.* at 51.

[120] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 62.

[121] *Id.* at 51–52.

[122] Temasek Press Release, *supra* note 63.

[123] *Id.*

is informal in nature. The situation also exposes the company to doubts over the true independence of its management and operations.[124]

In addition to its board of directors, since 2004 Temasek has also created the Temasek International Panel, composed of members from a number of prominent international businesses and political positions (e.g., the former Australian Prime Minister and former CEO of Exxon Mobile) who offer their perspective on the global environment,[125] and the Temasek Advisory Panel (made up of prominent businessmen, including the chairmen of several companies in which Temasek invests) to advise the board and senior management and to help shape the company's global strategies.[126]

It is unclear how much compensation Temasek directors receive. In its *2014 Review Report*, Temasek declares that the company's base salaries reflect market benchmarks and that bonuses are driven by the performance of individuals, teams, and the company as a whole as a means to offer both short- and long-term incentives.[127] Some bonuses can be deferred up to twelve years to account for the sustainability of returns over the market cycle.[128] It is difficult to compare Temasek's remuneration policy and practices for directors and management with those of private enterprises based purely on the company's policy statement. However, its stated remuneration policy is more akin to that of a private enterprise than to an arm of the state, making it more like a business entity commonly seen in the market. Moreover, Temasek's accounts, like those of all companies in Singapore, are subject to external audits. As disclosed in its annual review reports for 2014 and 2013, Temasek's auditing firm is KPMG in Singapore.[129] Such auditing by a reputable firm enhances Temasek's transparency and accountability. In an attempt to further improve transparency, the company has voluntarily published an annual review since 2004,[130] a move that has probably helped it to advance in the transparency league table for SWFs.[131]

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[124] In contrast, GIC, Singapore's other SWF, exhibits quite direct government intervention. The Prime Minister of Singapore serves as GIC's chairman, and several other ministers sit on its board. *See Corporate Governance*, GIC PRIVATE LTD., http://www.gic.com.sg/index.php/about-gic/corporate-goverance (last visited Nov. 5, 2015).

[125] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 76.

[126] *Id.* at 77.

[127] *Id.*, at 45–46.

[128] *Id.* at 45.

[129] *Id.* at 80; TEMASEK, TEMASEK REVIEW 2013, *supra* note 51, at 22.

[130] Lee, *supra* note 11, at 231. The Temasek Reviews since 2004 could be downloaded from Temasek's website: http://www.temasek.com.sg/investorrelations/investorlibrary/temasekreview.

[131] Temasek is ranked among the top three companies in the Linaburg-Maduell Transparency Index, published by the SWF Institute for the second quarter of 2013. *See Linaburg-Madduell Transparency Index*, SOVEREIGN WEALTH FUND INST., http://www.swfinstitute.org/statistics-research/linaburg-maduell-transparency-index/.

In general, Temasek seems to be reasonably well-run, though the OECD observed that this type of organization (i.e., a state-owned holding company) "has led to excessive indebtedness and has not proven to be efficient either in terms of corporate restructuring or in financial management."[132] According to its annual review, Temasek has net debts of SGD 3.7 billion (about USD 2.85 billion) in 2014 while total assets amounted to SGD 319 billion (about USD 245 billion).[133] Even in 2008 when the net debt was at the highest level since 2005, it amounted to SGD 33.8 billion (about USD 26 billion), while the total assets amounted to SGD 295.5 billion (about USD 227 billion).[134] The indebtedness of Temasek does not seem to be excessive. The Singaporean government appears content with allowing Temasek to run its portfolio of investments rather than using the company simply as a vehicle to control SOEs. In addition, as no strict government regulations have been applied to Temasek, the company has enjoyed some freedom to run its business (although it would be rather naïve to believe that it is entirely free of political influence). After all, Temasek manages the money of the Singaporean government and thus, the money of the Singaporean people. Accordingly, some degree of public supervision is appropriate.

Overall, Temasek's operation is in line with the OECD's recommendation that "the government should not be involved in the day-to-day management of SOEs and should allow them full operational autonomy to achieve their defined objectives."[135] As discussed further below,[136] Temasek does not normally appoint nominees or hold any preference shares to maintain control of the board of directors, nor is there any special bankruptcy regime designed specifically for Temasek or for GLCs in general. Both are subject to Singapore's corporate law. Taken together, this evidence suggests that Singapore's Temasek model is akin to a pure government-owned investment vehicle with other political, economic, or policy considerations mixed in.

However, does this mean that the companies in which Temasek owns a stake operate in the same manner? Although we know what the state and these companies disclose about themselves, how Singapore's GLCs perform in comparison with other listed firms in terms of corporate governance can be examined with hard data available in the public domain. It is to this task that we turn our attention.

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[132] OECD 2005 REPORT, *supra* note 11, at 60.

[133] "Net debt" is defined as total debts less cash and cash equivalents. TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 83.

[134] *Id*.

[135] OECD 2005 REPORT, *supra* note 11, at 191.

[136] *See infra* Part III.B.

III. EMPIRICAL SURVEY OF TEMASEK'S INFLUENCE ON CORPORATE GOVERNANCE

Our aim here is to determine whether the companies that Temasek holds a stake in have better or worse corporate governance structures than other firms. In this part, we first explain the scope of our empirical survey. We then analyze various indicators of good corporate governance, including the size of a company's board of directors, its number of independent directors, the role of the chairman and CEO, remuneration issues, and committees. Finally, we explore whether the government gives SOEs preferential treatment.

A. Scope and Limit

There are several dimensions to the scope of our empirical survey. First, it analyzes the annual reports of the fifty largest companies (by market capitalization) listed on the SGX in order to assess the corporate governance practices of Singapore's top-listed firms. Based on the sample companies' annual reports, we will be able to identify the names of directors, their nature (being executive, independent or non-independent non-executive director), the role they played in the company, committee membership, etc. This analysis affords a fairer assessment of Temasek's influence on the country's SOEs. Our list of the top fifty firms on the SGX comes from a publication issued by the exchange on April 17, 2014.[137] These fifty companies include all of the component stocks of the flagship Straits Times Index (STI)[138] and MSCI Singapore Index as of June 1, 2014[139]—representing the major components of Singapore's stock market.

Second, the survey also considers other unlisted or foreign firms invested in by Temasek. We rely on Temasek's own disclosures in its annual review to acquire the list of companies in Temasek's portfolio. It should be noted that this limits the sample because we have no concrete means of exploring Temasek's complete portfolio, as the company regularly makes investment or divestment decisions. Accordingly, in this Article, we are only able to analyze Temasek's potential influence on domestic firms.

Third, for comparison purposes, we also use relevant data collected from the component stocks of Hong Kong's Hang Seng Index (HSI) and

[137] *See The 50 Largest Capitalised Stocks Listed on SGX*, SINGAPORE EXCHANGE (Apr. 17, 2014), http://www.sgx.com/wps/wcm/connect/sgx_en/home/newsflash/mu_17042014_1.

[138] For the latest version of the components of the Straits Times Index, see *ST Index*, STRAITS TIMES, http://www.straitstimes.com/tags/st-index.

[139] For the latest constituents of the MSCI Singapore Index, see *Closing Index*, MSCI, http://www.msci.com/eqb/custom_indexes/sg_performance.html.

those of the Taiwan 50 Index traded on the Taiwan Futures Exchange. The fifty component stocks of the HSI represent the top companies traded on the Hong Kong Exchange (HKEx), many of which are Mainland Chinese SOEs. The Taiwan 50 Index is also comprised of the fifty largest companies listed in Taiwan. Although it is beyond the scope of this research to analyze the ownership structure of SOEs in Hong Kong and Taiwan, relevant data on the top-listed firms in both markets allows for comparison of our data on Singapore and Temasek, as Hong Kong is a fierce competitor of Singapore in the Asia-Pacific region and Taiwan is one of the emerging economies of East Asia and, like Singapore, is dominated by the ethnic Chinese.

Table 2 shows Temasek's shareholdings in the top fifty companies on the SGX based on the 2013 annual reports of the companies concerned. The companies are listed in alphabetical order.

TABLE 2: TEMASEK SHAREHOLDINGS IN TOP 50 COMPANIES ON THE SGX AS OF 2013

Company (indices)	**Registered place**	**Direct Holdings**	**Deemed Interests**	**Total (Direct plus Deemed)**
Ascendas REIT (STI, MSCI[ii])	Singapore	Not substantial (NS)[i]	NS	NS
CapitaCommercial Trust (MSCI)	Singapore	0%	32.6%	32.6%
CapitaLand (STI, MSCI)	Singapore	39.53%	1.40%	40.93%
CapitaMall Trust (STI, MSCI)	Singapore	0%	28%	28%
CapitaMalls Asia	Singapore	0%	65.5%	65.58%
China Merchants Property	China	NS	NS	NS
City Developments (STI, MSCI)	Singapore	NS	NS	NS
Comfort Delgro (STI, MSCI)	Singapore	NS	NS	NS
Dairy Farm	Bermuda	NS	NS	NS
DBS Group Holdings (STI, MSCI)	Singapore	11.6%	17.68%	29.28%
First Resources	Singapore	NS	NS	NS
Fraser & Neave	Singapore	NS	NS	NS
Fraser CentrePoint Trust	Singapore	NS	NS	NS
Genting Hong Kong	Bermuda	NS	NS	NS
Genting Singapore (STI, MSCI)	Bermuda	NS	NS	NS
Global Logistics Property (STI, MSCI)	Singapore	NS	NS	NS
Golden Agri-Resources (STI, MSCI)	Bermuda	NS	NS	NS
Great Eastern Holdings	Singapore	NS	NS	NS
Hong Kong Land Holdings (STI)	Bermuda	NS	NS	NS
Hutchison Port Holdings Trust (STI, MSCI)	Singapore	0%	11.01%	11.01%
IHH	Malaysia	NS	NS	NS
Jardine Cycle & Carriage (STI, MSCI)	Singapore	NS	NS	NS

Jardine Matheson Holdings (STI)	Bermuda	NS	NS	NS
Jardine Strategic Holdings (STI)	Bermuda	NS	NS	NS
Keppel Corp (STI, MSCI)	Singapore	20.47%	0.69%	21.17%
Keppel Land (MSCI)	Singapore	0%	54.65%	54.65%
Noble Group (STI, MSCI)	Bermuda	NS	NS	NS
Overseas Chinese Banking Corp. (STI, MSCI)	Singapore	NS	NS	NS
Olam International (STI, MSCI)	Singapore	0%	24.07%	24.07%
Prudential plc	U.K.	NS	NS	NS
Sembcorp Industries (STI, MSCI)	Singapore	48.85%	0.71%	49.56%
Sembcorp Marine (STI, MSCI)	Singapore	0%	60.82%	60.82%
Shangri-La Asia	Bermuda	NS	NS	NS
Singapore Airlines (STI, MSCI)	Singapore	56.02%	0.06%	56.62%
SIA Engineering (STI)	Singapore	0%	78.43%	78.43%
Singapore Exchange (STI, MSCI)	Singapore	NS	NS	NS
Singapore Land	Singapore	NS	NS	NS
Singapore Press Holdings (STI, MSCI)	Singapore	NS	NS	NS
Singapore Technologies Engineering (STI, MSCI)	Singapore	50.03%	0.38%	50.41%
Singapore Telecommunications (STI, MSCI)	Singapore	51.88%	0.06%	51.94%
SP Ausnet	Australia	0%	51.61%	51.61%
Starhub (STI, MSCI)	Singapore	0%	56.50%	56.50%
Suntec REIT	Singapore	NS	NS	NS
Thai Beverage (STI)	Thailand	NS	NS	NS
Total Access	Thailand	NS	NS	NS
United Industrial Corp.	Singapore	NS	NS	NS
United Overseas Bank (STI, MSCI)	Singapore	NS	NS	NS
United Overseas Land	Singapore	NS	NS	NS
Wilmar International	Singapore	NS	NS	NS

(STI, MSCI)				
Yangzijiang Shipbuilding (MSCI)	Singapore	NS	NS	NS
Notes: Under Singapore law, a shareholder has no obligation to disclose his or her interests if his or her total interest (including both direct and deemed interests) in the shares of the company is less than 5% of the company's outstanding shares. Therefore, if a company's annual report shows no Temasek's interests, we assume that the latter's stake is not substantial. However, it is not safe to assume that Temasek owns no shares in the company. STI denotes the Straits Times Index. MSCI denotes the MSCI Singapore Index.				

Temasek has a direct shareholding (above 5%) in seven of the fifty companies in Table 2, and owns more than 50% of the shares in three of them.[140] If we also consider indirect interests, Temasek has a greater than 5% stake in seventeen companies, including nine of which it has a greater than 50% stake.[141] Furthermore, we also identified forty-two other listed and unlisted companies in Singapore associated with Temasek, as shown in Table 3. Readers should be aware that this table does not constitute a comprehensive list of all of Temasek's domestic investments.

[140] The three companies are Singapore Telecommunications, Singapore Airlines, and Singapore Technologies Engineering.

[141] The nine companies are Singapore Technologies Engineering, SP Ausnet, Singapore Telecommunications, Keppel Land, Starhub, Singapore Airlines, Sembcorp Marine, CapitaMalls Asia, and SIA Engineering.

TABLE 3: TEMASEK SHAREHOLDINGS IN SELECT DOMESTIC FIRMS AS OF 2013

Company (indices)	Registered place	Direct Holdings	Deemed Interests	Total (Direct plus Deemed)
Ascott Residential Trust[i]	Singapore	46.92%	0%	46.92%
Asian Pay TV Trust	Singapore	7.59%	0%	7.59%
CapitaCommercial Trust (MSCI)[i]	Singapore	0%	32.6%	32.6%
CapitaLand (STI, MSCI)	Singapore	39.53%	1.40%	40.93%
CapitaMall Trust (STI, MSCI) [i]	Singapore	0%	28%	28%
CapitaMalls Asia [i]	Singapore	0%	65.5%	65.58%
Capita Retail China Trust [i]	Singapore	0%	36.99%	36.99%
City Spring Infrastructure Trust	Singapore	0%	37.41%	37.41%
DBS Group Holdings (STI, MSCI)	Singapore	11.6%	17.68%	29.28%
Hutchison Port Holdings Trust (STI, MSCI)	Singapore	0%	11.01%	11.01%
Keppel Corp (STI, MSCI)	Singapore	20.47%	0.69%	21.17%
Keppel Land (MSCI)	Singapore	0%	54.65%	54.65%
Keppel REIT	Singapore	0%	46.57%	46.57%
M+S Pte. Ltd.	Singapore	40%	0	40%
M1	Singapore	0%	19.39%	19.39%
Mapletree Investments Pte. Ltd.	Singapore	100%	100%	100%
Mapletree Commercial Trust[ii]	Singapore	0%	38.77%	38.77%
Mapletree Greater China Trust[ii]	Singapore	0%	34.24%	34.24%
Mapletree Industrial Trust[ii]	Singapore	0%	30.52%	30.52%
Mapletree Logistics Trust[ii]	Singapore	0%	40.88%	40.88%
MediaCorp	Singapore	100%	0%	100%
Neptune Oriental Lines	Singapore	15.91%	41.23%	57.14%
Olam International (STI, MSCI)	Singapore	0%	24.07%	24.07%
PSA International Pte. Ltd.	Singapore	100%	0%	100%

SATS	Singapore	0%	43.03%	43.03%
Sembcorp Industries (STI, MSCI)	Singapore	48.85%	0.71%	49.56%
Sembcorp Marine (STI, MSCI)	Singapore	0%	60.82%	60.82%
Singapore Airlines (STI, MSCI)	Singapore	56.02%	0.06%	56.62%
SIA Engineering (STI)	Singapore	0%	78.43%	78.43%
Singapore Technologies Engineering (STI, MSCI)	Singapore	50.03%	0.38%	50.41%
Singapore Telecommunications (STI, MSCI)	Singapore	51.88%	0.06%	51.94%
SMRT	Singapore	54.2%	0.05%	54.25%
Starhub (STI, MSCI)	Singapore	0%	56.50%	56.50%
STATS ChipPAC	Singapore	0%	83.9%	83.9%
Surbana Corp Pte. Ltd.	Singapore	60%	0%	60%
Notes: i. Indicates that Temasek has interests in these companies or trusts mainly through its holdings in CapitaLand Ltd., the firms' parent company. ii. Indicates that Mapletree Investments Pte. Ltd. is the controlling holder of these real estate trusts.				

In addition, based on Temasek's annual review for 2014,[142] we compiled a list of the company's major foreign investments, which are shown in alphabetical order in Table 4.

[142] TEMASEK, TEMASEK REVIEW 2014, *supra* note 51, at 90–97.

TABLE 4: SHAREHOLDINGS OF TEMASEK'S MAJOR FOREIGN INVESTMENTS

Company	**Country**	**Temasek's stakes (total interest in terms of % of outstanding shares)**
AIA	Hong Kong	4%
Alibaba	China	Unclear
Bank of China	China/Hong Kong	<1%
BG Group plc	U.K.	<1%
Bharti Airtel	India	3%
Celltrion, Inc.	South Korea	15%
China Construction Bank	China/Hong Kong	7.15%
Evonik Industries AG	Germany	5%
FTS International, Inc.	U.S.	41%
Gilead Sciences, Inc.	U.S.	<1%
ICBC	China/Hong Kong	1.99%
Kunlun Energy Co. Ltd.	Hong Kong	1%
Li & Fung	Hong Kong	3%
Lloyd's Banking Group	U.K.	1%
Markit Group Holdings	U.S.	Unclear
Ping An Insurance (Group) Co.	China/Hong Kong	3%
PT Bank Danamon Indonesia	Indonesia	67.37%
Pulau Indah Ventures Snd Bhd	Malaysia	50%
Repsol SA	Spain	6%
Shin Corp. plc	Thailand	41.62%
SP Ausnet[ii]	Australia	51.61%
Standard Chartered Bank plc	U.K.	18.06%
The Mosaic Co.	U.S.	5%
Thermo Fisher Scientific, Inc.	U.S.	1%
Turquoise Hill Resources	Canada	9%

Notes: If we were unable to ascertain Temasek's ownership interests from a company's annual report, the number of shareholdings is based on the figures reported in *Temasek Review 2014*. SP Ausnet, although listed on the SGX, is an Australia-based power company controlled by Singapore Power, which is fully owned by Temasek.

Before we further examine a few corporate governance benchmarks, we should note that our study has some limitations. First, this research only focuses on bigger companies. Thus, the data may not be representative of every listed Singapore company across all ranges of market capitalization. Second, the selection of companies was not random. We drew the list of companies from the list of the top fifty by market capitalization and from Temasek's own report. In short, what we will present is to compare the corporate governance practice of listed GLCs against that of other top listed companies in the Singapore market in order to examine the merit of the Temasek model. One should not overgeneralize our data.

B. Board Size and State Representation

The composition and function of the board of directors constitute essential components of corporate governance practice. However, the presence of more directors does not necessarily indicate better corporate governance (or vice versa). The OECD recognized that "[d]etermining the right size of the board is an important issue with respect to promoting board efficiency," though there is no one-size-fits-all approach.[143] In this section, we focus on the size of the board and the amount of state representation. We then consider issues related to independent directors in the next two sections. The *OECD 2005 Report* recognizes that the overall board size in the SOEs of many countries is large, although reductions have been seen in recent years.[144] In a follow-up study in 2013, the OECD noted that "a large number of OECD economies identify the optimum board size as somewhere between five and eight member[s]," though OECD does not provide an average board size of SOEs in OECD countries.[145] Some countries, such as Korea, also impose limits on the size of SOE boards.[146] The report states that the degree of state representation on SOE boards internationally ranges from none—usually in SOEs following the centralized model such as those in Denmark or Norway—or just a couple of representatives (e.g., Swedish and German SOEs) to almost the entire board.[147] Thus, there is no uniform standard for the amount of state representation on the board of an SOE. Some countries also require employee representation on the board[148] or have created a special board nomination process or policy (e.g., Australia) to determine board

[143] OECD, BOARDS OF DIRECTORS OF STATE-OWNED ENTERPRISES: AN OVERVIEW OF NATIONAL PRACTICES 76 (2013), http://www.oecd-ilibrary.org/governance/board-of-directors-of-state-owned-enterprises_9789264200425-en. [hereinafter OECD 2013 REPORT].

[144] OECD 2005 REPORT, *supra* note 11, at 123.

[145] OECD 2013 REPORT, *supra* note 143, at 76–77.

[146] OECD 2005 REPORT, *supra* note 11, at 123.

[147] *Id*. at 123–124.

[148] *Id*. at 124.

composition and/or state representation in an attempt to control political influence.[149] For example, the Norwegian government claims that the state "actively contributed to the establishment of nomination committees in the listed companies. . . . In wholly state-owned companies, the work of composing boards is carried out in a structured manner by the ministry that manages the State's ownership."[150]

In Singapore, there is no special law regulating Temasek or the companies it controls. Thus, the composition of the board is left for company law to decide. Under the Companies Act, there is no specific requirement for the size of a board of directors, as long as at least one director of each company is a resident of Singapore.[151] For listed companies, the Code of Corporate Governance (CCG 2012 and its predecessor CCG 2005)[152] issued by the Monetary Authority of Singapore (MAS) requires that "[e]very company should be headed by an effective Board to lead and control the company."[153] Instead, the CCG 2012 allows the board to "decide on what it considers an appropriate size for the Board, which facilitates effective decision making."[154] Of course, the board should not be "so large as to be unwieldy."[155] There is also no law requiring state representation in the companies controlled by Temasek, and Singapore does not require employee representation. These issues are matters for a company's shareholders to put into the company's constitution if deemed necessary.

Most listed companies rely on a nomination committee for board nominations, as required by both CCG 2012 and CCG 2005. A company's board should establish a nomination committee that makes recommendations on every board appointment.[156] This committee should have at least three directors, and the majority of the committee should be

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[149] *Id*. at 130–132.

[150] NORWEGIAN MINISTRY OF TRADE AND INDUS., THE STATE'S OWNERSHIP REPORT 2010 26 (2010), http://www.statoil.com/en/about/corporategovernance/shareholder/pages/thenorwegianstateasshareholder.aspx.,

[151] Companies Act 1967 (Act 42 of 1967) s 145(1) (Sing.).

[152] Compliance with the Code of Corporate Governance is prescribed by the rules of the SGX, but is voluntary for unlisted companies. CCG 2012 took effect with respect to annual reports relating to financial years commencing Nov. 1, 2012. However, certain rules will not be fully implemented until mid-2016. *See Code of Corporate Governance*, MONETARY AUTH. OF SINGAPORE, http://www.mas.gov.sg/regulations-and-financial-stability/regulatory-and-supervisory-framework/corporate-governance/corporate-governance-of-listed-companies/code-of-corporate-governance.aspx.

[153] MONETARY AUTH. OF SINGAPORE, CODE OF CORPORATE GOVERNANCE 2012 2 (2012), http://www.mas.gov.sg/~/media/resource/fin_development/corporate_governance/CGCRevisedCodeofCorporateGovernance3May2012.pdf [hereinafter CCG 2012].

[154] *Id*. § 2.5.

[155] *Id*.

[156] *Id*. § 4.1.

independent directors.[157] It should not only make recommendations on specific director appointments, but should also review the succession plan (notably for the chairman and CEO), board performance evaluation process, and director training programs.[158]

Based on current laws, we can analyze the sizes of the boards of directors of the top fifty companies by market capitalization in the SGX (see Table 2 for a complete company list), with the results presented in Table 5A.

[157] *Id*.
[158] *Id*. § 4.2.

TABLE 5A: NUMBER OF DIRECTORS ON THE BOARDS OF THE TOP 50 COMPANIES ON THE SGX

Item	Obs.	Mean	Median	Std. Dev.	Hi	Lo
All 50 companies	50	10.52	11	2.88	20	4
Companies in which Temasek has no substantial stake	33	10.64	11	3.47	20	4
Companies in which Temasek has a greater than 5% stake	17	10.29	10	1.10	13	9
Companies in which Temasek directly owns shares	7	10.14	10	0.90	11	9
Companies in which Temasek holds the majority of shares	3	10.67	11	0.58	11	10
All 30 STI component stocks	30	10.9	11	2.73	20	5
Listed companies in Temasek's domestic portfolio (see Table 3)	33	9.	9	1.80	13	6

Table 5A shows that the companies in which Temasek has a stake or owns shares do not necessarily have larger boards than other larger listed companies. This sets a comparable benchmark when we compare the number of proportion of independent directors below. The results of a two-sample t-test also provide no statistically significant evidence to suggest that the boards of these companies are larger than (p = 0.65), equal to (p = 0.69), or smaller than (p = 0.35) those of other large companies listed on the SGX.

We also examined the size of company boards between 2010 and 2013 based on the list of fifty companies in Table 2. To determine Temasek's stake in each, we used data from these companies' annual reports for each corresponding year. The results are presented in Table 5B.

TABLE 5B: AVERAGE SIZE OF BOARDS BETWEEN 2010 AND 2013

Category Mean (median, obs.[159])	**2013**	**2012**	**2011**	**2010**
All 50 companies	10.52 (11, 50)	10.62 (10, 50)	10.60 (10.5, 48)	10.53 (11, 47)
Companies in which Temasek has no substantial stake	10.64 (11, 33)	10.73 (10, 33)	10.68 (10.5, 32)	10.48 (11, 31)
Companies in which Temasek has a greater than 5% stake	10.29 (10, 17)	10.41 (10, 17)	10.44 (10.5, 16)	10.63 (10.5, 16)
Companies in which Temasek directly owns shares	10.14 (10, 7)	10.43 (10, 7)	10.43 (11, 7)	11 (12, 7)
Companies in which Temasek holds the majority of shares	10.67 (11, 3)	10.33 (10, 3)	10.67 (11, 3)	11 (12, 3)

Table 5B shows that the average size of the board in each category varied little between 2010 and 2013. Thus, at least since 2010, there has been little difference in the average board size of the fifty companies surveyed between those in which Temasek has a stake and those in which it does not. The board size of the top fifty companies on the SGX is also quite similar to the average figures reported for S&P 500 firms in the U.S. over the past decade. A study has shown that the average board size for S&P 500 firms was 10.7 between 2010 and 2013, comparable to the figures shown in Table 5B.[160]

In fact, the companies in which Temasek holds a stake actually have slightly smaller boards on average than the other top listed companies in Singapore. What is also interesting is that there is little variation in the size of the boards of the companies in which Temasek has a stake (i.e., around ten directors) relative to other companies. It is possible that Temasek prefers boards of a certain size despite the absence of any law in Singapore prescribing the board size of companies linked to Temasek or the government.

In addition to board size, another yardstick of corporate governance is the amount of state representation on the board. In general, in the pool of domestic and foreign companies we surveyed, we found no Temasek-nominated directors on their boards. One explanation may be Temasek's desire not to "become privy to price-sensitive information that might limit

[159] Some of the companies in our list of top fifty companies were not listed in 2010 or 2011, leading to a different number of observations in different years.

[160] Urska Velikonja, *The Political Economy of Board Independence*, 92 N.C. L. REV. 855, 864–65 (2014).

its ability to trade shares."[161] Of the GLCs in which Temasek directly holds shares, the government has the strongest presence in Singapore Technologies Engineering, which has three directors with direct connections to the government. As this company manufactures defense products, it is understandable that the government would have a strong interest in its management.[162] Even so, of the seven other directors on the company's eleven member strong board in 2013, none was a nominee of Temasek or the government. The evidence seems to put Singapore's Temasek model closer to Scandinavian countries such as Norway or Denmark, which adopt the centralized model of SOEs but without state representation.[163] It also accords with the general perception that Temasek does not directly intervene in the management of the companies in which it has a stake, although it is unavoidable that some directors may have worked for Temasek before serving on those companies' boards.[164]

We do not wish to imply that Temasek is not at all concerned with board composition. It has been reported that Temasek has pressed Standard Chartered, a large British bank, to formulate a clear succession plan for its top management.[165] Although it is not clear in Temasek's domestic portfolio, the company does sometimes insert a representative on a company board. One example is FTS International, Inc., an unlisted U.S. company. Of the eight directors named on the company's website, three clearly had Temasek connections.[166] In another example, when Temasek formed a joint venture with E.SUN Financial Holdings in Taiwan, it acquired one seat on the board of E.SUN.[167] These examples indicate that Temasek may adopt a more hands-on approach when the firm in question is an unlisted foreign firm. Such a position would be understandable, as Temasek's power to control the management of a foreign company is more limited than in the case of a domestic firm.

In sum, in this section, we show that the companies in which Temasek has a stake have boards no larger than those of other top listed companies in Singapore. In addition, with few exceptions (notably foreign investments),

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[161] *Supra* note 8.

[162] *See Overview*, ST ENGINEERING, http://www.stengg.com/about-us/overview (last visited Jan. 3, 2016).

[163] *See supra* note 147.

[164] For example, Mr. Hsieh Fu Hua (the former president of Temasek) is currently a director of UOB, the third largest banking group in Singapore. Mr. Chan Heng Wing (a director of Fraser & Neave in 2013) and Ms. Lim Hwee Hua (a director of Jardine Cycle & Carriage) both worked for Temasek earlier in their careers.

[165] Patrick Jenkins & Martin Arnold, *StanChart Urged to Start Work on Sands Succession Plan*, FIN. TIMES (July 29, 2014), http://www.ft.com/cms/s/0/fcfec3a2-1287-11e4-93a5-00144feabdc0.html#axzz38RdEY8HK.

[166] *See Board of Directors*, FTS INTERNATIONAL, http://www.ftsi.com/about/Pages/board-of-directors.aspx.

[167] *See infra* note 237.

Temasek does not nominate or control the directors of the boards of companies in which it has a stake. These results contradict OECD's criticism that "in a number of OECD countries SOE boards still tend to be too large, excessively staggered with too many state representatives lacking business perspective, and often independence."[168]

C. Number of Independent Directors

An important element of corporate governance is the ability and capacity of the board to make independent decisions. The OECD has observed that "[a] key factor in ensuring that boards can function efficiently and effectively is their independence. Boards must have autonomy and independence in the conduct of their duties and be free from day-to-day involvement from Ministers."[169] The degree of independence that SOE boards enjoy is partially dependent on the size and characteristics of the board and the number of state and employee representatives on the board.[170] The number of independent directors on the board is another yardstick for evaluating the quality of a company's corporate governance. We recognize that it is arguable whether the presence of more independent directors necessarily increases shareholder value, although there is a general trend "toward increasingly independent boards and the growing academic consensus that supermajority independent boards do result in greater corporate profitability."[171] Whether independent directors actually serve their intended function is not something that can be analyzed from public records. However, having more independent directors on a board should in theory increase the likelihood of that board making independent decisions, and thus decrease agency costs and the likelihood of mismanagement.[172]

Singapore's Companies Act has no requirements concerning independent directors. However, an SGX-listed company must comply with the Code of Corporate Governance's requirement to include a certain number of independent directors on its board. Independent directors are voluntary for unlisted firms. According to CCG 2012, "[t]here should be a strong and independent element on the Board, with independent directors

[168] OECD 2005 REPORT, *supra* note 11, at 122.

[169] *Id*. at 127 (quoting Joint Committee of Public Accounts and Audit, Parliament of Australia, *Corporate Governance and Accountability Arrangements for Commonwealth Government Business Enterprises: Report 372* (1999) 53).

[170] *Id*. at 127–28.

[171] Velikonja, *supra* note 160, at 864. *See generally* Sanjai Bhagat & Bernard Black, *The Uncertain Relationship between Board Composition and Firm Performance*, 54 BUS. LAW. 921 (1999) (considers the empirical evidence regarding whether board independence affects firm performance).

[172] For a general discussion of independent directors and corporate governance, see Donald C. Clarke, *The Independent Director in Chinese Corporate Governance*, 31 DEL. J. CORP. L. 125, 150–53 (2006).

making up at least one-third of the Board."[173] However, the threshold is raised to 50% if the chairman and CEO have certain connections (i.e., they are the same person or are immediate family members) or when the chairman is also part of the management team or is not an independent director.[174] This stipulation differs from CCG 2005, which prescribed the minimum one-third threshold without outlining any exceptions.[175] However, as the new requirement will not take full effect until 2016, we are not yet in a position to properly assess compliance with it.[176]

In Singapore, an independent director is defined as a director "who has no relationship with the company, its related corporations, its 10% shareholders or its officers that could interfere, or be reasonably perceived to interfere, with the exercise of the director's independent business judgment with a view to the best interests of the company."[177] Further, "[d]irectors should disclose to the Board any such relationship as and when it arises."[178] The independence of a director is determined by nomination committee members, the majority of whom should be independent directors and who consider factors relevant to a director's relationship with the company or related companies.[179] However, even when a specified relationship exists, the nomination committee can still consider the director in question to be independent. The reasons for this determination must be disclosed and explained in the company's annual report.[180]

We further examined the number of independent directors on the boards of the top fifty companies on the SGX (see Table 2). Unfortunately, the annual reports of four of these firms had insufficient information for us to ascertain that number.[181] We considered a director to be independent or non-executive if the company's annual report designates him or her as such. We did not otherwise re-examine a director's independence in lieu of a nomination committee's decision. For this research, we assume the information in these company reports to be accurate and truthful. With these caveats, the number of independent directors in the top fifty companies on the SGX is provided in Table 6A.

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[173] CCG 2012, *supra* note 153, § 2.1.
[174] *Id*. § 2.2.
[175] CCG 2005, *supra* note 153, § 2.1.
[176] *Supra* note 152.
[177] CCG 2012, *supra* note 153, § 2.3. Compared with the 2005 version, CCG 2012 adds that a connection with a substantial shareholder may also factor into a director's influence.
[178] *Id*.
[179] CCG 2012, *supra* note 153, § 2.3.
[180] CCG 2012, *supra* note 153, §§ 2.3, 4.3.
[181] All four companies belong to the same Jardine group. They are Hong Kong Land Holdings Ltd., Jardine Matheson Holdings Ltd., Jardine Strategic Holdings Ltd., and Dairy Farm Ltd. Despite being listed in Singapore, they are incorporated in Bermuda and dual-listed in Bermuda and London.

TABLE 6A: NUMBER OF INDEPENDENT DIRECTORS ON TOP 50 COMPANIES' BOARDS

Category (as in 2013 annual report)	**Obs.**	**Mean**	**Median**	**Std. Dev.**	**Hi**	**Lo**
All 50 companies	46	5.74	6	1.99	10	2
Companies in which Temasek has no substantial stake	29	5.21	5	2.09	10	2
Companies in which Temasek has a greater than 5% stake	17	6.65	7	1.46	10	4
Companies in which Temasek directly owns shares	7	7.71	7	1.11	10	7
Companies in which Temasek holds the majority of shares	3	7.67	8	0.58	8	7
All 30 STI component stocks	27	6.63	7	1.69	10	3
Listed companies in Temasek's domestic portfolio (see Table 3)	33	6.09	6	1.84	10	3

Table 6A shows that the average number of independent directors is slightly higher on the boards of the companies in which Temasek has a stake. The results of a two-sample t-test confirm that such companies are more likely than others to have more independent directors on their boards (p = 0.02). The difference becomes more obvious when Temasek directly owns shares in a company. However, we should caution that the average figures for the listed companies in Temasek's domestic portfolio in Table 3 are not markedly higher, and thus we do not wish to exaggerate our findings.

Our data also allowed us to go back in time to trace Temasek's influence on the same list of companies over the past few years. For simplicity, we show only the mean and median of the number of independent directors in each category. The results are presented in Table 6B.

TABLE 6B: AVERAGE NUMBER OF INDEPENDENT DIRECTORS BETWEEN 2010 AND 2013

Category (as in 2013 annual report) Mean (median, obs.)	**2013**	**2012**	**2011**	**2010**
All 50 companies	5.74 (6, 46)	5.74 (6, 46)	6 (6, 44)	5.72 (5, 43)
Companies in which Temasek has no substantial stake	5.21 (5, 29)	5.41 (6, 29)	5.64 (5, 28)	5.37 (5, 27)
Companies in which Temasek has a greater than 5% stake	6.65 (7, 17)	6.29 (7, 17)	6.63 (6, 16)	6.31 (6.5, 16)
Companies in which Temasek directly owns shares	7.71 (7, 7)	7.43 (7, 7)	7.57 (7, 7)	8 (8, 7)
Companies in which Temasek holds the majority of shares	7.67 (8, 3)	7 (7, 3)	7.33 (7, 3)	7.67 (7, 3)
Association between Temasek holding a substantial stake and having more independent directors than the other companies in Table 2	$p = 0.01$	$p = 0.07$	$p = 0.07$	$p = 0.09$
Association between Temasek directly owning shares and having more independent directors than the other companies in Table 2	$p = 0.001$	$p = 0.004$	$p = 0.015$	$p = 0.007$

Table 6B shows that the figures in each category vary little between 2010 and 2013. At least in recent years, the companies in which Temasek holds a stake seem to have more independent directors on their boards than other top listed firms. However, if we perform a two-sample t-test on each year, only in 2013 do we find a statistically significant relationship between a Temasek stake and a company having more independent directors than other top companies. Whether the result could be replicated in 2014 or beyond remains to be seen. If we narrow our analysis to companies in which Temasek directly owns shares, we find a statistically significant such relationship for all four years. Thus, the results presented in Table 6B show that Temasek does seem to exert a positive effect in terms of the number of independent directors associated firms have on their boards.

In sum, our data show that companies in which Temasek has a stake have more independent or non-executive directors on their boards than other large companies listed in Singapore. Although it may be unfair to assess the influence of independent directors based purely on their numbers, the existence of more independent directors on the board is generally taken as a sign of good corporate governance. It could be that these boards have fewer executive directors to ensure board independence. To ascertain the truth of this supposition, we also examine the proportion of independent on the boards of Singapore firms in the next section.

D. Proportion of Independent Board Directors

Table 7A shows the proportion of independent directors on the boards of directors of the top fifty companies listed on the SGX (see Table 2).

TABLE 7A: PROPORTION (%) OF INDEPENDENT DIRECTORS

Category (as in 2013 annual report)	**Obs.**	**Mean**	**Median**	**Std. Dev.**	**Hi**	**Lo**
All 50 companies	46	57%	57%	16.55	91%	33%
Companies in which Temasek has no substantial stake	29	52%	50%	16.69	91%	33%
Companies in which Temasek has a greater than 5% stake	17	65%	64%	13.57	91%	38%
Companies in which Temasek directly owns shares	7	76%	78%	8.60	91%	64%
Companies in which Temasek holds the majority of shares	3	72%	73%	8.20	80%	64%
All 30 STI component stocks	27	64%	64%	14.92	91%	38%
Listed companies in Temasek's domestic portfolio (see Table 3)	33	65%	67%	14.54	91%	38%

Similar to the results for the number of independent directors shown in Table 6A, Table 7A also shows that companies in which Temasek holds a stake seem to have a higher proportion of independent directors on their boards. The proportion is even higher in companies in which Temasek directly owns shares. Further analysis reveals a statistically significant relationship between a Temasek stake and a company having a higher proportion of independent directors than other companies ($p = 0.01$), a sign that Temasek exercises a positive influence over the composition of company boards. Again, we should caution that the average figures for the listed companies in Temasek's domestic portfolio in Table 3 are not markedly higher, and thus we do not wish to exaggerate our findings.

It is worth noting that none of the companies we surveyed had a proportion of independent directors below that required by CCG 2005 (i.e., one-third). As CCG 2012 has not yet taken full effect, we cannot comment on how these firms have adapted to the new code and its more stringent standards for independent directors. However, Table 7A shows that, on average, more than half the directors on the boards of the top fifty companies on the SGX are independent directors. If we consider companies in which Temasek is a shareholder, the figure rises to 70%. Although the figures in Table 7A are lower than the average figures for S&P 500 firms between 1997 and 2013,[182] they constitute encouraging news for the Singapore market.

In any case, we should not become overly obsessed with the figures in Tables 7A. For example, CapitaLand has a higher proportion of independent directors than First Resources (ten out of eleven [90.91%] versus five out of six [83.33%]),[183] but in both companies only one director is non-independent. It is thus also of value to examine the number of non-independent directors (who can be either executive or non-executive directors) on company boards (see Table 7B).

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[182] Velikonja, *supra* note 160, at 864–65.

[183] CAPITALAND LTD., ANNUAL REPORT 2014 (2014), http://capitaland.listedcompany.com/misc/ar2014.pdf. FIRST RESOURCES LTD., ANNUAL REPORT 2014 (2014), http://www.first-resources.com/upload/file/20150511/20150511044538_35274.pdf.

TABLE 7B: NUMBER OF NON-INDEPENDENT DIRECTORS ON BOARDS

Category (as in 2013 annual report)	Obs.	Mean	Median	Std. Dev.	Hi	Lo
All 50 companies	46	4.43	4	2.32	12	1
Companies in which Temasek has no substantial stake	29	4.90	5	2.57	12	1
Companies in which Temasek has a greater than 5% stake	17	3.65	4	1.62	8	1
Companies in which Temasek directly owns shares	7	2.43	2	0.98	4	1
Companies in which Temasek holds the majority of shares	3	3	3	1	4	2
All 30 STI component stocks	27	3.92	3	2.42	12	1
Listed companies in Temasek's domestic portfolio in which it has a stake (see the list in Table 3)	33	3.30	3	1.63	8	1

It can be seen from Table 7B that the companies in which Temasek holds a stake have fewer non-independent directors than other top companies. Indeed, we found a statistically significant relationship between a Temasek stake and a company having fewer non-independent directors that other large companies (p = 0.04), a finding that is consistent with the foregoing discussion.

We can again go back in time to trace Temasek's influence on the top companies listed in Table 2 over the past few years. The results are presented in Table 7C.

TABLE 7C: AVERAGE PROPORTION (%) OF INDEPENDENT DIRECTORS BETWEEN 2010 AND 2013

Category (as in 2013 annual report) Mean (median, obs.)	**2013**	**2012**	**2011**	**2010**
All 50 companies	57% (57%, 46)	57% (55%, 46)	59% 59%, 44)	56% (56%, 43)
Companies in which Temasek has no substantial stake	58% (50%, 29)	54% (61%, 29)	56% (57%, 28)	56% (55%, 27)
Companies in which Temasek has a greater than 5% stake	65% (64%, 17)	61% (58%, 17)	63% (63%, 16)	59% (61%, 16)
Companies in which Temasek directly owns shares	76% (78%, 7)	72% (75%, 7)	73% (75%, 7)	73% (78%, 7)
Companies in which Temasek holds the majority of shares	72% (73%, 3)	69% (70%, 3)	69% (75%, 3)	70% (78%, 3)
Association between Temasek having a substantial stake and a company having more independent directors than the other companies in Table 2	$p = 0.01$	$p = 0.08$	$p = 0.08$	$p = 0.22$
Association between Temasek directly owning shares and a company having more independent directors than the other companies in Table 2	$p < 0.001$	$p = 0.003$	$p = 0.007$	$p = 0.003$

The figures in each category of Table 7C vary little from 2010 to 2013, and we can thus assume that our findings fit into a general pattern over the past few years. Again, if we perform a two-sample t-test on each year, only in 2013 do we find a statistically significant relationship between a Temasek stake and a company having more independent directors than other top companies. However, if we narrow our analysis to companies in which Temasek directly owns shares (i.e., Temasek could directly exercise voting power in those companies' general meeting to elect directors), we see a statistically significant such relationship for all four years.

Our data show that the companies in which Temasek has a stake tend to be close to "supermajority independent boards,"[184] which coincides with studies of the independence of S&P 500 firm boards between 1997 and 2013.[185] However, it remains open to debate whether a supermajority independent board is a good thing or a bad thing. On its face, having a supermajority of independent directors should be better than simply having a majority independent board as academics generally agree that having a majority independent boards is a good thing.[186] However, "the marginal cost of the diminishing quality of information exceeds the marginal benefit of increased independence" when the board reaches the majority mark.[187] A super-majority board might be only marginally more willing than majority independent boards to fire a chief executive;[188] some commentators also reported that supermajority boards performed no better than merely majority independent boards.[189] Although we take no position on the matter in this Article, our data suggest that Temasek is pushing its portfolio of GLCs to have more independent directors on their boards to the point of sometimes having supermajority independent boards. Such prompting seems indicative of an intention to pursue good corporate governance. Whether this phenomenon would make Temasek's portfolio of GLCs more profitable will require another study.

Can the same phenomenon be seen among the unlisted companies controlled by Temasek? Although we do not have complete data, it seems that some of the private companies that are majority or fully owned by Temasek have chosen to comply with the Code of Corporate Governance even though they are not required to do so. For example, Mapletree Investments Pte. Ltd., which is fully owned by Temasek and manages a variety of listed real estate investment trusts, has six independent directors on its seven-strong board. For Singapore Technologies Telemedia Pte. Ltd., also fully owned by Temasek, the figure is six out of eight. This evidence indicates that Temasek may be applying the same policy to its entire range of domestic investments, regardless of whether they are public or private companies.

In sum, our data indicate that Temasek seems to be exerting a positive effect on corporate governance as measured by the number and proportion

[184] Velikonja, *supra* note 160, at 864.
[185] *Id*. at 865.
[186] *Id*. at 867.
[187] *Id*. at 868.
[188] *Id*.
[189] *Id*. at 868–69.

of independent directors on its associated companies' boards, although we have no record of Temasek's actual influence during general meetings or through any informal means. Its record in this regard places Temasek in the company of the Scandinavian countries, the Netherlands, Austria, Germany, Australia, and New Zealand, where the boards of most SOEs comprise independent directors.[190]

E. Role of Chairman and CEO

In addition to board composition, a company's corporate governance can also be assessed by the roles and/or relationship of its chairman and CEO or managing director. If the chairman and CEO are the same person or have a close relationship, the chairman may lack sufficient independence to make good judgments objectively in supervising management, though in practice many successfully companies do not separate the roles of chairman and CEO.

Singapore law provides little guidance on the function, power, and responsibilities of chairman and CEOs, which are as a result left primarily to a company's constitution to determine. For listed companies, CCG 2012 states that "[t]here should be a clear division of responsibilities between the leadership of the Board and the executives responsible for managing the company's business. No one individual should represent a considerable concentration of power."[191] The Code also requires that the chairman and CEO be separate persons in principle to increase accountability and the board's capacity to make independent judgments.[192] If they share a close family relationship, that fact should be disclosed.[193] Moreover, the role of the chairman is to lead the board and ensure that it functions effectively, and to facilitate the contributions of board members.[194] The Code also requires that a company appoint an independent director to take the lead in certain situations, such as when the chairman and CEO are the same person or immediate family members, when the chairman is part of the management team, or when the chairman is not an independent director.[195]

Drawing on this discussion of the current legal structure, we compare the chairman and CEO roles in the top fifty companies on the SGX based on their 2013 annual reports. We first examine the nature of the chairman, with the results presented in Table 8A.

[190] OECD 2005 REPORT, *supra* note 11, at 128.
[191] CCG 2012, *supra* note 153, princ. 3.
[192] *Id*. § 3.1.
[193] *Id*.
[194] *Id*. § 3.2.
[195] *Id*. § 3.3.

TABLE 8A: NATURE OF CHAIRMAN

Category (as in annual report of 2013)	**Obs.**	**Executive**	**Non-executive**	**Independent director**	**Chairman also CEO**
All 50 companies	48	15	16	17	4 (out of a pool of 50 companies)
Companies in which Temasek has no substantial stake	31	15	7	9	4
Companies in which Temasek has a greater than 5% stake	17	0	9	8	0
Companies in which Temasek directly owns shares	7	0	2	5	0
Companies in which Temasek holds the majority of shares	3	0	2	1	0
All 30 STI component stocks	30	9	8	13	2
Listed companies in Temasek's domestic portfolio (see Table 3)	33	0	13	20	0

Table 8A shows that in none of the companies in which Temasek holds a stake is the chairman an executive director, and certainly none of the chairmen is also the CEO of their company. Even for the companies in Table 2, however, less than 10% have a chairman and CEO who is the same individual. Thus, it seems to be common practice among the top companies on the SGX to split the role of chairman and CEO. In fact, the record of these companies is better than that of S&P 500 companies in 2013 when 45% of S&P 500 companies are found to separate the roles of CEO and chairman.[196] If we divide the role of chairman into two groups—executive and non-executive (including independent directors)—we find a statistically significant relationship between a Temasek stake and a company being more likely to have a chairman who is a non-executive director than other companies (Fisher's exact = 0.00).

Another way to assess the role of CEO is to examine the CEO nomination process. In 2005, the OECD observed that companies in most OECD countries choose their CEOs through a political process rather than through the route of company law.[197] The OECD has not produced conclusive evidence on how far and how deep the political process affects the nomination of management, though it still recognized that "[p]oliticisation of the appointment process . . . in some jurisdictions, remains an impediment to consistent and transparent process."[198] There is no evidence to show that the companies in which Temasek has a stake have a different nomination process from that of other top listed companies. With the exception of listed real estate investment trusts,[199] listed companies are required by the Code of Corporate Governance to have nomination committees.[200]

Our survey of the directors of the top fifty listed companies on the SGX turned up no evidence of Temasek directly appointing nominee directors to a company board, although some directors have previously worked with Temasek or with GLCs in which it has a stake. This is unavoidable given that Singapore is a small city-state. However, as Temasek often invests in companies via a subsidiary, it is sometimes difficult to ascertain a company's link with Temasek. If we count only those directors with a direct connection to Temasek (e.g., working as an executive of or serving on the board of directors or advisory board of Temasek), there are only nine (out of 176) on the boards of the seventeen companies in which Temasek has a stake, among them Mr. Simon Israel (former

[196] Velikonja, *supra* note 160, at 864–65.
[197] OECD 2005 REPORT, *supra* note 11, at 140.
[198] OECD 2013 REPORT, *supra* note 143, at 30.
[199] Real estate investment trusts are not required to have nomination or remuneration committees. Their management companies alone are required to have these committees.
[200] CCG 2012, *supra* note 153, § 4.1.

executive director of Temasek, who sits on the boards of SingTel and CapitaLand) and Mr. Peter Seah (a member of the Temasek Advisory Board, who sits on the Starhub and DBS Group boards). This is opposed to six directors out of a total of 353 directors for the top fifty companies in the SGX. Although this research is preliminary and caution needs to be exercised in interpreting its results, we can at least state that there is no clear proof that companies in which Temasek holds a stake prefer to elect directors with a past connection to Temasek.

F. Preferential Government Treatment?

As previously discussed, one potential problem with SOEs is that the state might use them to meet certain policy or political ends or ask them to give preferential treatment to the state itself, other SOEs, or individuals with government connections at the company's expense. It is a pitfall in countries in which personal relationships are an important part of doing business.[201] For example, it might be interesting to know whether the government would award a project to a SOE due to its connection with the state or whether a regulator would apply less penalties to a SOE for a breach of law. A higher degree of preference treatment to SOEs is also a sign of the state's interference in the market and the confusion of roles of being both regulators and shareholders. This issue offers us another angle by which to analyze Temasek and its portfolio of GLCs.

Although we lack complete data, there are signs that the Singapore government has not let its role as the ultimate stakeholder interfere with its regulatory function. For example, the government fined SingTel (as noted the largest telecoms group in Singapore and majority-owned by Temasek) a record SGD 6 million (about USD 4.8 million) in April 2014 for a fire in the Bukit Pajang Internet Exchange that caused service disruption in parts of Singapore.[202] This fine was preceded by a series of fines imposed by the Media Development Authority for disruption to SingTel's cable TV services in 2012 and 2013.[203] Other telecoms firms in Singapore have not been punished in this way, judging by the regulator's press releases.

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[201] Lin & Milhaupt, *supra* note 4, at 706.

[202] Irene Tham, S*ingTel Fined a Record $6m for Bukit Panjang Exchange Fire; OpenNet and CityNet also Fined*, STRAITS TIMES (May 6, 2014), http://www.straitstimes.com/singapore/singtel-fined-a-record-6m-for-bukit-panjang-exchange-fire-opennet-and-citynet-also-fined.

[203] SingTel has been fined on several occasions: in December and February of 2013 and September of 2012. *See* Press Release, Media Dev. Auth. Singapore, MDA Fines SingNet S$220,000 for Mio TV Service Disruption in May (Dec. 12, 2013), http://www.mda.gov.sg/AboutMDA/NewsReleasesSpeechesAndAnnouncements/Pages/NewsDetail.aspx?news=604; Press Release, Media Dev. Auth. Singapore, MDA Fines SingNet S$80,000 for Mio TV Service Disruptions (Sept. 21, 2012), http://www.mda.gov.sg/AboutMDA/NewsReleasesSpeechesAndAnnouncements/Pages/NewsDetail.aspx?news=17.

Although concerns have been expressed over the sale of OpenNet (the manufacturer and owner of Singapore's optical cable network) to SingTel,[204] there is no apparent wrongdoing, as SingTel was already a shareholder of OpenNet. Moreover, the media regulator has forced SingTel to share with Starhub (a fierce competitor in the cable TV services market) the broadcasting of Barclays English Premier League football since acquiring exclusive broadcasting rights in 2010.[205] All of these examples provide evidence that Singapore's regulators do not treat SingTel differently from other firms, although we should mention that Temasek also holds stakes in two other telecoms firms in Singapore.[206]

Turning to the financial sector, there is similarly no proof that the government interferes in the management of DBS, the city-state's largest financial group in which Temasek holds about a 30% stake, or forces it to extend credit to local businesses or other GLCs. In fact, none of the three local banking groups received—or required—a government bail-out during the 2008 global financial crisis, and all score well in global rankings of the safest or strongest banks.[207] Thus, there appears to be no question of the Singapore government forcing government-linked banks to pursue some policy or political objective. Furthermore, MAS fined DBS for the disruption of its online banking and ATM services in 2010, and the financial regulator also required the bank to provide additional capital to deal with operational risks.[208] These are signs that the regulator does not give preferential treatment to the bank because it is partially owned by Temasek.

DBS also duly reported its exposure to related-party transactions, including transactions with a list of companies in which Temasek has a stake (e.g., Singapore Airlines, SingTel, CapitaLand, Mapletree

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[204] Wong Wei Han & David Bottomley, *OpenNet Set for Sale in Proposed S$126m Deal*, TODAY (July 24, 2014), http://www.todayonline.com/business/opennet-set-sale-proposed-s126m-deal.

[205] Press Release, Media Dev. Auth. Singapore, MDA Directs SingNet to Cross-Carry Barclays Premier League 2013–2016 Seasons (Apr. 24, 2013), http://www.mda.gov.sg/AboutMDA/NewsReleasesSpeechesAndAnnouncements/Pages/NewsDetail.aspx?news=5.

[206] *See* Table 1 of this Article.

[207] For example, in the annual ranking of the world's safest fifty banks by Global Finance Magazine, the three Singaporean banking groups were ranked twelfth, thirteenth and fourteenth in 2013. The three were also the top three Asian banks on the list. *See World's Safest 50 Banks 2013*, GLOBAL FIN. MAGAZINE (Aug. 26, 2013), http://www.gfmag.com/awards-rankings/best-banks-and-financial-rankings/worlds-50-safest-banks-2013. In Bloomberg's annual ranking of the world's strongest twenty banks, the three Singaporean banking groups all made the cut (including OCBC at No. 4 and DBS at No. 7) in 2014. *See The World's Strongest Banks,* BLOOMBERG (June 16, 2014), http://www.bloomberg.com/news/2014-06-15/hang-seng-bank-tops-list-of-strongest-lenders.html.

[208] *MAS Lifts the Operational Risk Multiplier Imposed DBS Bank Ltd*, MONETARY AUTH. OF SINGAPORE (Oct. 28, 2011), http://www.mas.gov.sg/News-and-Publications/Media-Releases/2011/MAS-Lifts-the-Operational-Risk-Multiplier-Imposed-on-DBS-Bank-Ltd.aspx.

Investments, SMRT, and Starhub) in its annual report.[209] Although we do not have the means to examine the details of those transactions in relation to other deals in the market, there is no obvious wrongdoing associated with them.

In sum, there is no evidence that Temasek and its GLCs are pressed by the government to meet political objectives or afford other GLCs preferential treatment. The public record also suggests that the government does not hesitate in imposing hefty fines on GLCs. It is beyond our remit to speculate about whether there are deals omitted from the publicly disclosed information. Given the lack of comprehensive information, it is also impossible to draw an empirical conclusion on the matter. However, from what we have seen thus far, it does seem that the Singapore government handles its role as regulator and ultimate stakeholder of GLCs reasonably well.

G. Comparison with Large Listed Companies in Hong Kong and Taiwan

To put Temasek and Singapore's corporate governance standards into context and determine how they perform in relation to those of their Asian competitors, we now compare the data presented earlier with data collected from the component stocks of the Hang Seng Index (HSI) listed on the Hong Kong Exchange (HKEx)[210] and the Taiwan 50 Index component stocks traded on the Taiwan Stock Exchange[211] as of July 1, 2014. Each index contains fifty companies to allow comparison with the list of the top fifty companies on the SGX.

Before we present our data, it must be emphasized that this is not a complete survey of all listed companies in the three markets. The data presented in this section are purely for comparison purposes. Our data is intended only to illustrate certain aspects of the corporate governance practices of the fifty largest and/or signature companies in the three markets. Sample bias is thus a possibility. Due to space limitations, we do not venture further in considering SOE corporate governance rules and regulations outside Singapore. Nonetheless, the data presented in this section sheds useful light on how the companies in which Temasek holds a stake fare in comparison with other top companies (including SOEs) in East

[209] DBS GROUP HOLDINGS LTD., ANNUAL REPORT 2013 70 (2013), http://www.dbs.com/annualreports/2013/index.html.

[210] The latest component stocks of the HIS can be found in the index's dedicated website. *Major Indexes*, HANGE SENG INDEXES COMPANY LTD., http://www.hsi.com.hk/HSI-Net/HSI-Net.

[211] The latest information on the Taiwan 50 Index can be found on the website of Taiwan Stock Exchange. *Táiwān 50 zhǐshù chéngfèn gǔpiào* (臺灣50指數成分股票) [*Taiwan 50 Index Component Stocks*], TÁIWĀN ZHÈNGQUÀN JIĀOYÌ SUǑ (臺灣證券交易所) [TAIWAN STOCK EXCHANGE], http://www.twse.com.tw/ch/trading/indices/twco/tai50i.php.

Asia.

Our first comparison concerns board size, with data taken from the companies' 2013 annual reports. The results are presented in Table 9A.

TABLE 9A: NUMBER OF DIRECTORS ON THE BOARDS OF TOP 50 COMPANIES IN THE THREE MARKETS

Item (as in 2013 annual report)	Obs.	Mean	Median	Std. Dev.	Hi	Lo
Overall						
Singapore: 50 largest companies by market capitalization (see Table 2)	50	10.52	11	2.88	20	4
Hong Kong: HSI component stocks	50	13.22	13	3.56	22	6
Taiwan: Taiwan 50 Index component stocks	50	10.82	9.5	3.84	21	5
SOEs						
Singapore: companies in which Temasek holds a greater than 5% stake (out of the 50 companies in Table 2)	17	10.29	10	1.10	13	9
Hong Kong: Chinese SOEs in the HSI	22	12.73	12.5	3.12	19	6
Taiwan: companies in the Taiwan 50 Index in which the government owns 5% or more of the shares	11	11.45	9	4.32	21	7

It is clear from Table 9A that the size of the boards in the top fifty companies of Singapore and Taiwan is similar, whereas the boards of the Hong Kong-listed companies are slightly larger. Of the companies in which the government has a greater than 5% stake, the average board size in the Singapore and Taiwanese lists is quite similar, although there is less variation among the firms in which Temasek holds a stake relative to those in which the Taiwanese government holds a stake. In the Hong Kong list, we find only one company that is owned by the Hong Kong government,[212] but the HSI contains a number of Chinese SOEs. Accordingly, we use Chinese SOEs as our benchmark and note that, similar to the general pattern, Hong Kong-listed Chinese SOEs have slightly larger boards than their Singaporean and Taiwanese counterparts.

Our next comparison is the number of independent directors on the boards of the three sets of companies. The results are presented in Table 9B.

[212] The company is the MTR Corp., the operator of Hong Kong's subway system.

TABLE 9B: NUMBER OF INDEPENDENT DIRECTORS IN TOP 50 COMPANIES IN THE THREE MARKETS

Item (as in 2013 annual report)	Obs.	Mean	Median	Std. Dev.	Hi	Lo
Overall						
Singapore: 50 largest companies by market capitalization (see Table 2)	46	5.74	6	1.99	10	2
Hong Kong: HSI component stocks	50	5.64	5	2.12	13	3
Taiwan: Taiwan 50 Index component stocks	50	2.46	3	1.34	5	0
SOEs						
Singapore: companies in which Temasek holds a greater than 5% stake (out of the companies in Table 2)	17	6.65	7	1.46	10	4
Hong Kong: Chinese SOEs in the HSI	22	4.86	5	2.12	7	3
Taiwan: companies in the Taiwan 50 Index in which the government owns 5% or more of the shares	11	2.45	3	1.86	5	0

Table 9B shows that the sample companies in Singapore and Hong Kong have, on average, a higher number of independent directors than their counterparts in Taiwan. This observation may not do justice to Taiwan, however, as the country does not currently mandate that companies have independent directors,[213] with the financial regulator only recently signaling its intention to force all listed firms to have independent directors by 2017.[214] If we focus our attention on SOEs, we see greater divergence in the

[213] Zhèngquàn Jiāoyì Fǎ (證券交易法) [Securities and Exchange Act] (promulgated by the Standing Comm. Nat'l People's Cong., Apr. 30, 1968, effective Apr. 30, 1968), art. 14-2 (Taiwan).

[214] *See* Press Release, Securities and Futures Bureau, Financial Supervisory Commission, Yùgào kuòdà dúlì dǒngshì jí shěnjì wěiyuánhuì zhī shèzhì fànwéi (預告擴大獨立董事及審計委員會之設置範圍) [Trailer Set to Expand the Scope of the Independent Directors and Audit Committee] (Nov. 27, 2013), http://www.sfb.gov.tw/ch/home.jsp?id=95&

three markets. For example, the companies in which Temasek has a stake clearly have more independent directors on their boards than either the large Chinese SOEs in the HSI or Taiwanese SOEs in the Taiwan 50 Index.

As noted previously, it is also useful to look at the proportion, rather than number, of independent directors. Accordingly, Table 9C lists the proportions of these directors on the boards of the companies in the three markets of interest.

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TABLE 9C: PROPORTION OF INDEPENDENT DIRECTORS IN TOP 50 COMPANIES IN THE THREE MARKETS

Item (as in 2013 annual report)	**Obs.**	**Mean**	**Median**	**Std. Dev.**	**Hi**	**Lo**
Overall						
Singapore: 50 largest companies by market capitalization (see Table 2)	46	57%	57%	16.55	91%	33%
Hong Kong: HSI component stocks	50	43%	38%	13.41	93%	24%
Taiwan: Taiwan 50 Index component stocks	50	24%	23%	14.06	56%	0%
SOEs						
Singapore: companies in which Temasek holds a greater than 5% stake (out of the companies in Table 2)	17	65%	64%	13.57	91%	38%
Hong Kong: Chinese SOEs in the HSI	22	39%	38%	5.66	55%	31%
Taiwan: companies in the Taiwan 50 Index in which the government owns 5% or more of the shares	11	22%	22%	18%	56%	0%

Table 9C shows that Singapore again performs well by this metric. The top listed firms on the SGX, on average, have a higher proportion of independent board directors than their counterparts in Hong Kong and Taiwan. Again, for Taiwan, the results may be affected by the ongoing structural changes in the corporate governance of listed companies. For Hong Kong, the proportion may be influenced by firms' larger average board size. If we focus on SOEs, we again find that the companies in which Temasek has a substantial stake have, on average, a higher proportion of independent directors than the top Chinese SOEs listed in Hong Kong and the largest Taiwanese SOEs.

Another useful comparison, which we make in Table 9D, concerns the nature of the chairmen in the three lists of companies. Unfortunately, owing to data limitations, we were unable to identify whether the chairmen in the Taiwanese sample were executive, non-executive, or independent directors, and we thus treat this as missing information.

TABLE 9D: NATURE OF THE CHAIRMAN

Item (as in 2013 annual report)	Obs.	Executive	Non-executive	Independent director	Chairman also CEO
Overall					
Singapore: 50 largest companies by market capitalization (see Table 2)	48	15	16	17	5 (out of 50 companies)
Hong Kong: HSI component stocks	50	37	11	2	13
Taiwan: Taiwan 50 Index component stocks	50	.	.	.	9
SOEs					
Singapore: companies in which Temasek holds a greater than 5% stake (out of the companies in Table 2)	17	0	9	8	0
Hong Kong: Chinese SOEs in the HSI	22	17	5	0	4
Taiwan: companies in the Taiwan 50 Index in which the government owns 5% or more of the shares	11	.	.	.	1

From Table 9D, it seems that the top listed companies in Hong Kong provide a sharp contrast with Singapore in having chairmen who are largely executive directors, although our Hong Kong data differ little from similar data for S&P 500 firms in the U.S.[215] Nonetheless, it is clear that Hong Kong and Singapore deviate greatly in this respect. There is a particularly large discrepancy between the companies in which Temasek holds a stake and the Chinese SOEs listed in Hong Kong.

The limited data presented in this section are consistent with the three markets' corporate governance rankings in Asia.[216] Of course, it is one thing to examine the number and proportion of independent directors, and another to investigate whether those independent directors are truly independent and what function they serve in their companies. In addition, looking purely at the mean and median figures in the foregoing tables without examining the background of each market's company law and market regulations may make for a misleading comparison.

Nonetheless, for the purposes of this Article, the data clearly show that the companies in which Temasek has a stake perform well against both the top Chinese SOEs listed in Hong Kong and Taiwanese SOEs in certain corporate governance benchmarks. Thus, at least in the context of Greater China, Temasek and its portfolio of GLCs do seem to offer a positive model of maintaining both good governance and control over domestic industries. However, does this mean that the Temasek model is applicable to the reform of SOE corporate governance China? What factors contribute to Temasek's relative good performance? What could be the weakness of the Temasek model? These questions will be addressed in the next part of the Article.

IV. LESSONS FROM THE TEMASEK MODEL

What lessons can we learn from our empirical survey? The discussion thus far may offer a beacon of hope for reformers of SOEs in China or other Asian countries looking to improve the corporate governance of these huge firms. We have shown that Temasek operates like a competitive private investment company despite being wholly owned by the state. The Temasek Board, although comprising mainly Singaporeans, contains a few non-Singaporeans and is primarily made up of independent or non-executive directors. Clear company goals are laid out in the Temasek Charter. Although the company's CEO shares a close family relationship with the Prime Minister of Singapore, there is no obvious state interference in its

[215] Velikonja, *supra* note 160, 864–65.

[216] *See CG Watch 2012*, ASIAN CORP. GOVERNANCE ASS'N (Sept. 10, 2012), http://www.acga-asia.org/public/files/CG_Watch_2012_ACGA_Market_Rankings.pdf.

funds or management. In addition, the company's operations are fairly global in nature, with offices and investments in various part of the world, although its main focus is Singapore and elsewhere in Asia.

At the same time, it seems that Temasek has exerted a positive influence over the companies in which it has a stake in terms of encouraging them to have more independent or non-executive directors and to split the roles of the chairman and CEO. There is also no evidence to suggest that Temasek directly exerts control over the boards of any domestic company by imposing directors upon it. Although our survey covers only certain aspects of corporate governance, and we have no way of examining the actual influence that takes place behind the scenes, our data does show that the companies in which Temasek has a stake exhibit a higher standard of corporate governance than other top listed firms in Singapore. Our finding is also coherent with an earlier research in 2006 showing that Singaporean GLCs have higher valuations and better corporate governance than a control group of non-GLCs.[217]

However, before we become too optimistic, it is important that we understand some of the institutional factors behind the Temasek model. In this part, we will identify three main factors that may contribute to what Temasek is today: strong public governance to support self-regulation, foreign investment and competition, and the state's desire to be a market leader. These factors will help us to determine whether the Temasek model can be transplanted elsewhere or is a special creature of Singapore that is unlikely to survive outside the confines of this city-state.

A. From Public Governance to Corporate Governance

From our empirical data, we would argue that the Temasek model shows that good public governance[218] might lead to good corporate governance. As discussed above, the public nature of SOEs may render it difficult for them to find a perfect fix with the existing corporate governance framework, given that the state is accountable to political institutions, due process, and its citizens. From this light, the improvement of corporate governance of SOEs must start from the state itself. Public governance may be an important factor to determine the governance of SOEs. However, as previously noted, Temasek's operations are subject to

[217] Ang & Ding, *supra* note 3, 85–86.

[218] In this Article, the term "public governance" is used loosely to refer to governance of the public sector, as it is traditionally used in the areas of public or administration law. In the context of corporate law, the term may also be used to refer to the public-ness of modern corporations and their influence on society. *See* Hilary A. Sale, *Public Governance*, 81 GEO. WASH. L. REV. 1012, 1015 (2013). The term has also been use to describe transnational public governance systems. *See* Larry Cata Backer, *Private Actors and Public Governance beyond the State: The Multinational Corporation, the Financial Stability Board, and the Global Governance Order*, 18 IND. J. GLOBAL LEGAL STUD. 751 (2011).

very little regulation.[219] Thus, the explanation for why Temasek is relatively free from political interference and operates like a competitive private enterprise may lie at least partly in the quality of public governance in Singapore.

Singapore is known for its strong law enforcement against graft and corruption. It also took the number one spot in the World Bank's Ease of Doing Business Ranking (out of 189 economies) in 2013 and 2014.[220] If we compare Singapore with other Greater China jurisdictions, China was ranked a distant ninetieth in the World Bank's Ease of Doing Business Ranking in 2014, Hong Kong ranked third, and Taiwan ranked nineteenth.[221] Singapore is ranked second in the Global Competitiveness Index 2013–2014 issued by the World Economic Forum (with Hong Kong ranked seventh, Taiwan ranked twelfth, and China ranked twenty-ninth).[222] Singapore was ranked fifth in the world (and first among Asian countries) by Transparency International in its 2013 global Corruption Perceptions Index (with Hong Kong in fifteenth, Taiwan in thirty-sixth, and China in eightieth).[223] Further, in the 2012 Rule of Law Index compiled by the World Justice Project, Singapore is ranked first in the world (out of ninety-seven economies) in terms of order and security, tenth in terms of regulatory enforcement, and nineteenth in terms of open government.[224] All of this evidence demonstrates the strength of public sector governance in Singapore, which is naturally reflected in Temasek's performance and likely to have an influence on the companies it owns. This may also support arguments that strong law enforcement of corporate and contract law may be a necessary step toward diffuse ownership and probably good corporate governance.[225]

The government strives to ensure that the country is competitive on the global stage and is as corruption-free as possible, which creates an environment conducive to protecting Temasek and its GLCs from undue political interference. That environment allows Temasek to do its job of pursuing the long-term interests of the government as the ultimate shareholder. It also aligns Temasek's (and the government's) interests with the goals of good corporate governance. The long period of political

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[219] See *supra* Part II.C.

[220] *See Ease of Doing Business in Singapore*, WORLD BANK, http://www.doingbusiness.org/data/exploreeconomies/singapore.

[221] *Doing Business: Economy Rankings*, WORLD BANK, http://www.doingbusiness.org/rankings.

[222] WORLD ECON. F., THE GLOBAL COMPETITIVENESS REPORT 2013–2014 tbl 3 (2013), http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

[223] TRANSPARENCY INT'L, CORRUPTION PERCEPTIONS INDEX 2013 (2013), http://cpi.transparency.org/cpi2013/results/.

[224] WORLD JUSTICE PROJECT, WJP RULE OF LAW INDEX 2014 140 (2014), http://worldjusticeproject.org/sites/default/files/files/wjp_rule_of_law_index_2014_report.pdf.

[225] Roe, *supra* note 18, at 589–93.

stability that Singapore has enjoyed has also helped the company to devise long-term strategies and made the company less likely to suffer from short-termism. Temasek's GLCs thus have ample room to grow on their own, albeit with the state's backing. In the case of Temasek, minimal regulation and self-regulation have not conflicted with good corporate governance outcomes.

However, the strength of the Temasek model is also its weakness. The few black letter laws governing Temasek's operations expose it to changes in the political climate. As noted, the Temasek model currently operates in an environment in which the government is generally effective and clean. Without such institutional support, minimal regulation and self-regulation could create fertile grounds for corruption and political interference. In Singapore, there has been no change in the government or the governing political party since the country's independence in 1965. Thus, we have no evidence by which to determine whether a change in government would affect the operations of Temasek or its portfolio of GLCs. We also have no way of predicting what will happen in the future if Singapore does one day change its government. Temasek's future is open to anyone's speculation. Thus, although the stability of Singapore's political environment may have been a major factor contributing to the successful performance of Temasek thus far, should the government change hands, no one can ensure that Temasek will continue to perform successfully in the future.

We do not suggest that there should be no political influence or public oversight over a state-owned holding company like Temasek. When funds come from the government or a target company is associated with the public interest (e.g., a power company), a certain degree of public supervision is probably desirable. What we argue instead is that the self-regulation of SOEs may not have positive effects if that self-regulation takes place in an environment lacking strong public governance.

A natural question then is how much public regulation is optimal for SOEs to balance the need for public supervision with the need for corporate management flexibility. This is a question that is beyond the scope of this Article. However, the Temasek model offer key lessons regarding utilization of strong anti-corruption laws to reduce the chance of government officials interfering with the management of SOEs for personal gains or other inappropriate purposes and a vibrant economy help to create an environment in which SOEs can operate without excessive regulation or state intervention. Accordingly, creating a clean, effective, and competitive environment is likely to be more crucial than replicating the internal structure of Temasek. Then, the amount of public supervision that is necessary depends on the will of voters and the intention of the political institutions in a given country.

In the case of Temasek, the answer to establishing effective supervision over operations in the absence of strong public supervision appears to lie in assuring a relatively high ratio of independent directors on the boards of the companies in which it has a stake. In other words, by having more directors who have no affiliation with management or the majority shareholder, the model ensures that associated companies are less likely to be manipulated by political institutions, assuming that the independence of those directors is assured.

Is it possible then to transplant the Temasek model to another country with black letter rules? The Temasek model is based on the respect, tolerance, and self-restraint the Singapore government exhibits. Unfortunately, those characteristics are not easily replicated. Thus, in general, we are inclined to take a negative view. On the one hand, it is unclear whether it is effective for a state to legislate clear goals for an SOE (such as the Temasek Charter) through black letter laws. It is one thing to state clear goals and guidance and another to pursue them efficiently in practice. On the other hand, there are issues that cannot be legislated directly, as doing so might reduce the flexibility of management. For example, if a law prescribes that an SOE must have more independent directors than other listed companies, SOEs might simply enlarge their boards to meet the numbers. Without other support such as an effective regime that can ensure the independence of an independent director, an obsession with numbers could prompt a company to hire individuals without merit, thereby reducing the effectiveness of the independent director regime and raising costs for the company. It is also debatable whether such qualities as ethical standards and professionalism can be legislated.

In addition, Singapore is a small country with only one central government managing all matters, making it easier to control.[226] In contrast, China is a much larger country that employs a governance structure that is much more sophisticated with a multilayered structure including central, provincial, and smaller governments. The sheer number of SOEs in China also poses challenges with one report estimating a figure of 155,000 SOEs in China controlled by central and local governments.[227] Therefore, reforming China's SOEs is a much more complicated task. Singapore's Temasek model shows that public governance could be translated into good corporate governance for SOEs. Nonetheless, in China's case, enhancing the public governance quality is itself a challenging task. There are too many other variables that may affect the reform of China's SOEs. Simply transforming a state-owned holding company to be like Temasek without other supporting factors should render the path of "Temasekization"

[226] Louise Lucas, *Singapore Seeks to Export Own Model*, FIN. TIMES (July 29, 2015), http://www.ft.com/cms/s/0/2adc8d68-20a6-11e5-aa5a-398b2169cf79.html#axzz3hLMwP65q.

[227] *Fixing China Inc*, THE ECONOMIST, Aug. 30, 2014, http://www.economist.com/news/china/21614240-reform-state-companies-back-agenda-fixing-china-inc.

different from what Temasek is today.

In sum, any government that wishes to transplant the Temasek model thus faces a dilemma. On the one hand, it must be willing to relinquish some degree of power to the management of a holding company or a SOE. It must resist the temptation to intervene whether for the sake of the public interest or merely as a power play. On the other, if the country lacks strong public governance standards and an effective enforcement regime against corruption, more stringent laws might be required (e.g., to ensure that the government could not intervene in the management of SOEs). However, depending on how they are drafted, having more black letter laws risks inviting more political wrestling or interference, which is likely in turn to weaken the flexibility of the Temasek model. Policymakers need to carefully consider these factors before attempting to transplant the Temasek model.

B. Foreign Activities and Market Forces

Another important dimension to consider in evaluating Temasek's influence on corporate governance is its considerable foreign investments and, in turn, its need to play by foreign rules. Although Temasek itself is not listed and has only one shareholder, it taps into the capital market by issuing Temasek Bonds and Temasek Euro-commercial paper notes,[228] which exposes it to a certain degree of market and investor pressure. Moreover, many companies in which Temasek holds a stake have substantial operations outside Singapore. For example, Singapore Telecommunications is the largest telecoms firm in Southeast Asia, and it also operates businesses in India and Australia. In addition, DBS—the largest bank in Southeast Asia by assets—also has operations in Hong Kong, China, Taiwan, and India.

Having a stake in businesses outside Singapore may help to explain why Temasek behaves like an active investor akin to a private equity or hedge fund. As an active market player with considerable investments outside Singapore, Temasek must create a positive image and behave like a responsible market participant—rather than an entity pursuing political goals—to avoid a foreign backlash. It must also play by the rules of other countries and regions, most notably those of the United States, United Kingdom, and European Union, and may be held responsible to a target company or its shareholders or even held liable for its activities (depending on national law).[229] Given Temasek's wide range of investments throughout

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[228] *See Temasek US$5 Billion ECP Programme*, TEMASEK, http://www.temasek.com.sg/investorrelations/temasekeurocommercialpaper.

[229] Rose, *supra* note 11, at 102–04; Henry Ordower, *The Regulation of Private Equity, Hedge Funds, and State Funds*, 58 AM. J. COMP. L. 295, 296–98 (2010).

the world, the safest route for it to follow is to maintain a standard (e.g., corporate governance, conduct of business, internal compliance, etc.) sufficiently high to pass the test in most countries. For example, it was recently reported that Temasek's relationship with Standard Chartered, in which Temasek holds an 18% stake, was under strain following the giant British bank's settlement with the U.S. government over its eight-year breach of U.S. sanctions against Iran.[230] As the USD 667 million penalty is dwarfed by a series of hefty fines and settlements paid to the U.S. government in recent times,[231] it may not be the amount of the fine that has caused such discomfort but rather the bank's flagrant breach of American law regarding Iran over a long period of time. If that is the case, it demonstrates Temasek's propensity to stay low-profile.

Our research proves the market to be an important force for improved corporate governance. The evidence suggests that Temasek's thinking goes like this: if it must comply with foreign laws, then why should it treat its domestic portfolio any differently? Temasek also benefits as a shareholder by ensuring a good corporate governance structure, which increases its value in both Singapore and the other countries in which it has businesses interests. Thus, to a certain extent, the Singaporean state's interests as a shareholder (via Temasek) and regulator are aligned through market competition.

If, in contrast, a SOE does not have to comply with foreign market regulations because it has only domestic operations or interests, the SOE will face no foreign pressure to ensure that it maintains certain corporate governance standards. For example, China's Central Huijin Investment Ltd., which controls all of Chinese largest banks and a number of state-owned banks,[232] does not invest in any foreign financial institutions. Thus, it faces much less foreign pressure (at least direct pressure) than Temasek. In this situation, the Temasekization of Central Huijin (if it happens) may not reach its intended effect.

We do not mean to suggest that an SOE must venture into a foreign market or become listed on a foreign exchange, although many large Chinese SOEs have done both. As small as Singapore is, Singaporean firms are often forced to expand to overseas to generate higher return and growth. In contrast, Chinese SOEs may care less about foreign competition than

[230] Patrick Jenkins & Martin Arnold, *Bricks Come Loose from StanChart Tower Amid Whispering Campaign*, FIN. TIMES (July 23, 2014), http://www.ft.com/cms/s/0/2cf8b910-1278-11e4-a581-00144feabdc0.html#slide0.

[231] For example, in June 2014, BNP Paribas, a French bank, agreed to pay a fine of US$8.9 billion to the U.S. government and pleaded guilty to violating U.S. sanctions against Sudan. Kara Scannell, *BNP Pleads Guilty to Sanctions Violations and Faces $8.9bn Fine*, FIN. TIMES (June 30, 2014), http://www.ft.com/cms/s/0/db2daede-009c-11e4-9a62-00144feab7de.html?siteedition=uk#axzz3A4Ve2OLs.

[232] *See About Us*, CENTRAL HUIJIN INVESTMENT LTD., https://perma.cc/7W9A-FKDA.

Singaporean SOEs given the size of their domestic market and the clout they have at home. What we are arguing is that the Temasek model might lose its charm if Temasek or the GLCs only target the domestic market. Thus, foreign investment is another institutional factor that must be considered in assessing whether the Temasek model can be transplanted elsewhere.

C. Be a National Champion in a Good Way

Another important lesson to be learned from the Temasek model is that the state can send a signal to the market that good corporate governance is expected. In other words, the state can lead by example. Temasek also provides an example of the desire for national champions co-existing with good corporate governance practices. Instead of competing to be the biggest in the domestic context, Singapore's Temasek and its portfolio of GLCs compete to be the ones with higher standards. This Article does not judge whether the "kiasuism" (i.e., the social attitude of being afraid of losing out)[233] is a good thing or bad thing for a society. Nonetheless, this Article suggests that the cultural background might offer part of the reasons why the Temasek model results in higher corporate governance standards for SOEs in Singapore.

By leading by example, Temasek and its portfolio of GLCs raise the bar for other firms and provide a benchmark for institutional and individual investors in the market. We do not wish to suggest that having more independent directors (or fewer executive directors) is an absolute good in terms of stock prices or firm profitability. That is a subject for further theoretical or empirical research. We also do not propose that a country should implement laws requiring SOE boards to comprise primarily independent and/or non-executive directors. However, what we can learn from Temasek is that instead of lagging behind private enterprises, SOEs can be leaders in good corporate governance.

A related issue is whether the state can be an activist investor like many private equity funds seeking to change the direction of a target company. Temasek claims that it is an active but not activist investor,[234] though this does not necessarily mean that it does not attempt to have a voice in a company's management decisions beyond selling its stake. There are reports of Temasek sitting down with the management of an associated company informally (rather than confronting it in a general meeting) when it feels that the company is moving in the wrong direction.[235] In addition, Temasek has sometimes attempted to improve a target company's

[233] *See supra* note 47.
[234] *Supra* note 8.
[235] *Supra* note 8.

performance by launching a joint venture. For example, in 2006, Temasek formed a joint venture with E.SUN Financial Holdings to improve that company's corporate governance, risk management systems, and offering of financial products in the hopes of securing a long-term investment,[236] although it walked away from the deal in 2008.[237] While the reasons for Temasek's termination of the joint venture remain unclear, E.SUN increased its number of independent directors: from two in 2006 to four in 2008.[238] That may not mean much, but it is a sign that Temasek appears to be interested in improving the corporate governance standards of target companies even when it does not have majority control.

How much a state should behave like an activist investor is open to question. In the domestic context, taking an activist role may open up a channel for the government to interfere with private businesses without due process. Many SOEs in fact consider excessive political interference to be a common problem. In addition, the state has other regulatory tools at its disposal to force through changes if necessary. Thus, there is no particular need for the state to evade public oversight by being an activist investor.

In the foreign investment context, a sovereign wealth fund might face significant difficulties if it began behaving too much like an activist investor in pursuing changes within a company. Such activism by an arm of a foreign state would be very likely to attract the criticism of the host country and invite concerns over possible threats to the public interest or even national security. Therefore, institutions such as Temasek are probably better off staying under the radar, which may explain Temasek's lack of activism while continuing to trade actively. However, it is interesting to consider how a sovereign wealth fund like Temasek might behave like an activist investor in pushing for corporate reforms in the future.

Another question of interest is whether Temasek and its portfolio of GLCs champion corporate social responsibility or other benchmarks such as gender equality on the board. At present, we have no evidence to show that the companies in which Temasek has a stake have more women on their boards than the other large companies listed on the SGX.[239] It is also

[236] *See* Press Release, E.SUN Fin. Holding Co. Ltd., Yùshān jīn kòng yǔ dànmǎxī kònggǔ cèlüè liánméng (玉山金控與淡馬錫控股策略聯盟) [Yushan Temasek Holdings and Strategic Alliances] (Mar. 14, 2006), http://www.esunbank.com.tw/about/165.board.

[237] *See Dànmǎxī qiú qù yùshān jīn zhuǎn liàn mógēn shì dān lì* (*淡馬錫求去 玉山金轉戀摩根士丹利*) [*Temasek Seeks to Send Yushan Kim to Morgan Stanley*], TÁIWĀN PÍNGGUǑ RÌBÀO (台灣蘋果日報) [APPLE DAILY TAIWAN] (Mar. 4, 2008), http://www.appledaily.com.tw/appledaily/article/finance/20080304/30318132/.

[238] *Annual Reports*, E.SUN FIN. HOLDING CO., LTD, http://www.esunfhc.com.tw/ir/about_report.info.

[239] Of the fifty top companies on the SGX listed in Table 2, those in which Temasek has a stake seem to have a slightly higher average number of women on their boards than other companies (1.06 women as opposed to 0.67). However, we found no statistically significant relationship between a Temasek stake and a company having more women on its board than the number of women on boards of

unclear whether those companies are more environmentally friendly than other firms. Temasek has also not followed in the steps of Norway with regard to disclosing its voting intention after or even before voting takes place in company general meetings.[240] It will be interesting to investigate whether Temasek will follow Norway's decision in the future.

V. CONCLUSION

In conclusion, this Article uses Singapore's Temasek Holdings as a case study to examine the corporate governance of SOEs in the Asian context. Our data does lend support to arguments that SOEs could still enjoy good corporate governance if the state is both willing to relax control and determined to lead by example. These data thus offer hope that Temasek can serve as a road map for China as it seeks to reform its vast array of SOEs.

However, Temasek's performance in terms of improving the corporate governance of its invested firms is not a product of strict legal requirements, but more likely the result of the healthy organizational culture entrenched by the government's determination to keep its hands off investment decisions. This Article identifies several institutional factors that help to explain Temasek's achievements and the empirical evidence we have collected. On the one hand, Singapore has a strong record of good public governance and shows no inclination to exert excessive political control over SOEs, which has allowed Temasek to pursue the long-term interests of the government as the ultimate shareholder. It has also served to align Temasek's (and the government's) interests with the goals of good corporate governance. On the other hand, Temasek has considerable foreign investments, and accordingly must play by the rules of a range of foreign countries in addition to adhering to domestic regulations.

A possible explanation for our empirical finding that the companies in which Temasek hold a stake have higher quality corporate governance than other firms may thus be that the safest way for Temasek to show foreign governments and investors that it cares about its businesses is to hold these businesses against high standards. Taken together, these factors indicate that it would be difficult to transplant the Temasek model to other countries, including China, without replicating the underlying environment in which Temasek currently thrives. Nonetheless, this Article shows that if politicians resist the temptation to interfere, a sovereign wealth fund or SOE can be a properly-managed market leader.

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other large companies in 2013.

[240] Richard Milne & Jonathan Guthrie, *Norway's Oil Fund to Reveal Voting Intentions*, FIN. TIMES (Aug. 7, 2014), http://www.ft.com/cms/s/0/ddb6feb2-1e15-11e4-bb68-00144feabdc0.html#axzz3A4Ve2OLs.